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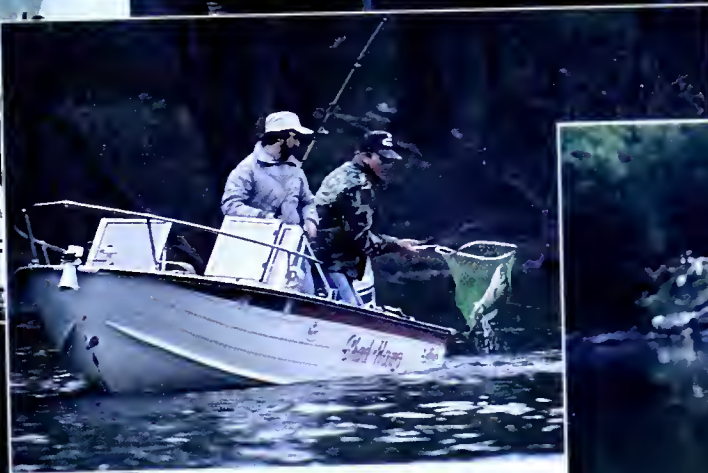
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Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine



Annual Report



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A Progressive 12 Months



Edward R. Miller, P.E.
Executive Director
Pennsylvania Fish Commission

The 1990-91 fiscal year ended on June 30, 1991, completing one of the most challenging 12-month periods in recent Commission history. At the July 30, 1990, Commission meeting, William J. Sabatose was elected Commission President and Leonard A. Green was elected Vice President to guide the agency through this busy year.

Implementation of the new trout/salmon permit regulation began on January 1, 1991, and by the end of June, nearly 615,000 permits had been sold, exceeding the Commission's early estimate. This new revenue allowed the agency to move ahead on schedule with major hatchery renovation at many of our fish culture stations. Commission revenues from federal aid also exceeded previous year receipts by nearly \$700,000, which is a timely result of intensified efforts by the Commission to capture all available federal funding for public fishery and boating purposes.

On May 9, 1991, dedication ceremonies were held at the new Conowingo Dam fish lift on the lower Susquehanna River. This new \$12 million facility is a major accomplishment in our long-standing Susquehanna River anadromous fish restoration efforts. Commission engineers also completed surveys and conceptual designs for the Pennsylvania Department of Environmental Resources to use for fishway construction at Easton and Chain dams on the Lehigh River.

On May 10, 1991, 15 new waterways conservation officers graduated from the H. R. Stackhouse School of Fishery Conservation and Watercraft Safety. Six of the new officers were assigned to vacant districts, and the remaining nine WCOs were given a variety of assignments during the recreation season, mostly in the area of boating safety enforcement. The addition of these officers helped with successful prosecutions of nearly 6,300 Fish Law and 3,600 Boat Law violations.

New statewide bass regulations were established for the 1991 fishing season. These changes have been enthusiastically accepted by conservation-minded bass fishermen statewide. Bass populations have already responded favorably to more conservative management regulations.

Much progress was made in expanding the KARE (Keystone Aquatic Resource Education) program, and the stage is set to reach an increasing number of young people in the 1991-1992 school year.

Completion of several key acquisitions, including the Elk Creek Marina site on Lake Erie, were completed, and substantial progress was made with development of the Lake Erie North East Access site.

Fish production and stocking efforts exceeded 120 million, up nine million from the previous year. However, adult trout production was down slightly because of serious bird predation at several of our largest trout stations. Cooperative nurseries had another productive year, providing more than 1.3 million fish while donating nearly 157,000 hours of volunteer effort.

The Adopt-a-Stream program included 185 projects and many hours of volunteer effort, and 19 Education & Information volunteers gave over 1,000 hours of effort and instructed 15,000 people. Twelve water safety awareness instructor training sessions were held, and these volunteers gave more than 2,300 hours of their time to this boating safety effort. These efforts, together with the many hours volunteered by the deputy waterways conservation officers, are an invaluable addition to the Commission's programs and to the public. On behalf of the Commission and the public, I commend them for their dedication.

Next year presents a whole new set of challenges, and the Commission looks forward to moving ahead in all program areas. Your continued support is essential to these efforts.



Pennsylvania Fish Commission

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Brockport

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Bureau of Education and Information

Not many agencies can boast of having a record of 125 years of public service; so the Bureau of Education and Information hung out the banner and made sure anglers and boaters knew some of the history of the agency they support. Hanging out the banner was not just a figure of speech. Through much of the year the Harrisburg headquarters displayed a large banner marking the 125th Commission anniversary. The public was able to buy anniversary ball caps, calendars and commemorative wooden fishing plugs. Special events, exhibits and shows also used the anniversary theme.

These events were worked into an already busy schedule for the 15 staff members who are responsible for two magazines, state-wide news releases and radio programs, a growing education program, numerous publications, Angler Recognition Program and other public relations functions of the agency.

Pennsylvania Angler

Pennsylvania Angler celebrated its own anniversary. Since December 1931 the *Angler* has been a source of information for anglers about fishing in the Commonwealth. It has progressed from a typed mimeographed news bulletin for fishermen to a full-color magazine for anglers, boaters and conservationists. Today the *Angler* is an award-winning magazine. During 1991 the magazine ran features on the history of the Commission and fishing in Pennsylvania.

Boat Pennsylvania

Even though *Boat Pennsylvania* is much younger, having originated in 1984, it remains a popular magazine with Pennsylvania boaters, be they personal watercraft enthusiasts, sailors or canoeists. Pennsylvania waters provide such a varied recreation that almost any kind of boating is possible. Throughout the year, the magazine addressed a multitude of interests while emphasizing safety no matter what type of boating people enjoy. The editor of the magazine won the prestigious Captain Fred E. Lawton Boating Safety Award for his contributions to furthering boating safety.

Education

The popularity of the Keystone Aquatic Resource Education (KARE) program was gratifying to everyone on staff. More than 1,300 teachers have been trained in 15-hour workshops to use KARE materials. The number of corps facilitators who actually teach the workshops expanded to 59. These dedicated educators receive additional training so they can teach a minimum of two workshops per year to other teachers. They are the means by which the Commission can reach out across the state with its program and materials. Their dedication to the program resulted in over 45 workshops being offered, which is two years ahead of the program's goals.



To keep facilitators informed and motivated, KARE staff produced a newsletter called *The KAREgiver*. Teachers who have taken the workshop and are using it in their classrooms received a newsletter called *The KAREteacher*. Materials were developed and piloted for early elementary grades also.

The summer of 1991 was the second year for the Pittsburgh urban fishing education program. This year the program reached out to several special population groups. The theme "Be a SMART angler" was successfully continued.

Media relations

Several unforeseen events, such as bird predation at hatcheries, contractor delays and fish advisories, created a challenge for media relations staff. The Fish Commission enjoys positive press because it maintains open, honest communication with the media, even when it's news we wish we didn't have to report, such as fish shortages.

Two items continued to be especially popular—the trout kit and the inseason trout stocking list.

Broadcasting

Many anglers have listened for years to the weekly radio programs of the Fish Commission. This year they covered a variety of subjects from fishing and boating to history and environmental issues. The programs continued to be a handy digest of information pertinent to the season.

Publications

The new *Identification Guide to Pennsylvania Fishes*, which costs \$2, was a popular publication in 1991. Also published and distributed to the public was the fourth, and last, in a series of promotional brochures on Pennsylvania fishing—this one highlighting bass, muskies, northern pike, walleye and other fish. Stocked trout, wild trout and lake fishing brochures are also available.

Other brochures printed during the year were on limestone streams, shad restoration in the Susquehanna River and panfishing. Two new fishing guides, on the sunfish and herring families, also were produced.

Graphic Services Section

Modern technology continued to improve this section's services. Inhouse printing of many publications reduced cost and production time. The art director and press operator worked to produce brochures, pamphlets and flyers for all bureaus. The professional look of Fish Commission publications can be credited to this team.

Fulfillment

Fulfillment staff handled subscriptions for *Pennsylvania Angler* and *Boat Pennsylvania*, sent out PLAY packets and thousands of orders for publications and promotional items, and processed over 1,500 Angler Recognition applications and mailed out awards, which included new state records. They also were responsible for maintaining the bureau's inventory control of publications and special items, which included distributing the popular third edition in the commemorative knife series. They staffed the Harrisburg office's front window where licenses are sold, literature is distributed and questions are answered.

Volunteer E&I Corps

This group of 19 dedicated volunteers gives 1,000 or more hours each year to Fish Commission programs and projects. They conducted 230 programs, traveled over 10,000 miles and reached almost 15,000 people. They conducted kids fishing programs, worked with sportsmen's groups, were in charge of the aquatic station at the state Envirothon, manned booths at sport shows, helped with stocking, conducted programs for special populations, gave talks, and assembled and delivered KARE materials to teachers. They greatly expanded the public relations capabilities of the bureau—all on a volunteer basis.

Bureau of Property and Facilities Management

Division of Property Services

Adopt-a-Stream Section

During the 1990-91 fiscal year, the Adopt-a-Stream Section (AAS) approved 185 project applications—150 streams and 35 lakes. Approved projects consisted of 31 new streams and five new lake projects that filled gaps left by discontinued approved projects from 1989. Of the 150 stream projects, 102 were involved in fish habitat improvement, with 48 litter cleanup projects, water quality monitoring, and related projects. There were 35 lake projects, with 34 involved in fish habitat-related work, and one in litter cleanup.

AAS personnel supervised 35 on-site fish enhancement structure construction projects in adopted waters. Lake habitat improvement projects were also supervised by the Adopt-a-Stream staff, with a total of nine projects. This section also presented 28 environmental education programs for youth and adult cooperators. Aquatic surveys for five projects were completed in adopted waters.

Agricultural ramps and crossings (9) were designed and constructed through the Adopt-a-Stream program on Commonwealth farms. The AAS staff provided 51 on-site design sessions on stream fish habitat improvement projects and 14 lake habitat improvement projects. A total of 28 stream plans and permits and nine lake plans and permits were issued to AAS cooperators for fish habitat improvement projects.

Completed statewide were seven requests for technical guidance for fish enhancement projects, in addition to the normal Adopt-a-Stream activities.

The Adopt-a-Stream program, with its cooperators, opened a total of 51,802 feet of stream banks for public fishing through temporary easements.

In-service training sessions were conducted for the Adopt-a-Stream staff.

All staff members in the AAS Section participated in the promotion of agricultural conservation at Penn State's "Ag Progress Days." This was accomplished through field

demonstrations of stream-side fencing, stream corridor management, and agricultural ramp and crossing design techniques, with displays on fish habitat-related subjects.

Real Estate Section

The Real Estate Section serves as the vehicle by which the Fish Commission administers and manages its existing property rights, acquires and secures new property rights, and performs support services for other Commission bureaus and divisions. In performing these functions, the Real Estate Section is actively involved in activities such as: investigating and negotiating new acquisitions; reviewing boundaries, encroachments and special land use requests; preparing service purchase contracts, lease agreements, property agreements and legal property documents; and processing lease payments, license payments, intra/interagency correspondence and public inquiries.

In March 1991, the Commission acquired a 57-acre parcel of land at the mouth of Elk Creek in Girard Township, Erie County, on the shore of Lake Erie. This unique property offers the potential for a major addition to the fishing and boating facilities available to the public.

Throughout the year, Commission staff was engaged in monitoring the progress of the construction of a new marina complex at Northeast, Erie County, which is also on Lake Erie. This project is the first major cooperative venture undertaken by the Commission wherein private funds and a private corporation are used to develop Commission property. When completed, the facilities, under the management of Safe Harbor Marina, Inc., will offer free public parking, free public launching and the use of a protected harbor (the most significant feature of the development), in addition to wet and dry boat storage rental, restaurant facilities and a marine supply and repair shop.

Survey Section

The Survey Section services the divisions throughout the Bureau of Property and Facilities Management. Surveys for the Real Estate Section are for possible acquisition of new property, re-surveys (for possible encroachments) and for new or renewed lease lines.

A large percentage of survey work is done for the Engineering and Technical Services Division and the Construction and Maintenance Services Division and consists of surveys for new design (topographical), construction and building stake-outs, loca-

tions of sewer and utility lines, and as-built surveys after construction.

The Survey Section also works with the Dam Safety Program—staking and locating core-drill holes, and surveying for new spillway and drain designs.

Division of Construction and Maintenance Services

The work of the divisions of Construction and Maintenance Services and Engineering and Technical Services is related and therefore appears in a combined report. During this fiscal year their dedicated workforces of skilled engineering, construction and maintenance personnel continued to carry out a major share of the Fish Commission's program to promote and provide for safe public use of recreational waters. The responsibilities toward that program and many other related activities include the development and maintenance of access areas, lakes, hatcheries and administrative facilities; the improvement and restoration of fish migration and water quality; and furnishing engineering and technical services for other Fish Commission activities, local governments and sportsmen's groups.

The access area system consists of over 250 developed properties throughout the state. The following are the most notable projects undertaken during the 1990 fiscal year.

Construction Section

Pleasant Gap Fish Culture Station, Centre County. Installed clarifier, pipe lines and polishing pond for wastewater treatment. Upgraded entire electrical system and installed standby generator.

Linesville Fish Culture Station, Crawford County. Made renovations to underground plumbing and started development of polishing ponds for wastewater treatment.

Tylersville Fish Culture Station, Clinton County. Installed new roofs on hatchhouse, garage and Commission-owned dwelling. Installed new offices and restrooms in existing hatchhouse. Began construction of new maintenance and feed storage building and installed water quality enhancement equipment.

Big Spring Fish Culture Station, Cumberland County. Installed alarm system and assisted with the installation of bird predation devices.

Benner Spring Fish Culture Station, Centre County. Removed approximately 2,000 cubic yards of silt from inlet canal.

Constructed cover over aerator and rerouted water supply to Correctional Industries at Rockview.

Pleasant Mount Fish Culture Station, Wayne County. Removed old and installed new roofs on hatchhouse nos. 1 and 2 and the maintenance garage. Constructed new visitor's pavilion. Repaired numerous water leaks in concrete raceway piping and repaved area around hatchhouse.

Oswayo Fish Culture Station, Potter County. Constructed concrete pads for installation of new feed bins. Installed two new three-phase pumps and controls for the multi-purpose building.

Union City Fish Culture Station, Erie County. Removed old bridge and replaced with culvert pipe. Installed automatic change-over switch to work in conjunction with standby generator.

Upper Spring Creek Shad Hatchery, Centre County. Installed new pump and plumbing in hatchhouse.

Tionesta Fish Culture Station, Forest County. Completed construction of new multi-purpose building and began construction of sludge-drying building. Excavated silt from warming pond.

Reynoldsdale Fish Culture Station, Bedford County. Repaired aerator tower and areas around new windows installed in hatchhouse.

Huntsdale Fish Culture Station, Cumberland County. Constructed three generator buildings and installed three standby generators.

Bushkill Office (Fisheries Management), Pike County. Rewired building and installed new lights.

Sweet Valley Regional Office, Luzerne County. Prepared site for new storage building.

H. R. Stackhouse Training Center, Centre County. Installed new lighting and air conditioning.

Pleasant Gap Headquarters, Centre County. Remodeled four offices.

Browns Pond, Warren County. Dredged pond and installed emergency spillway.

Hankins Pond, Wayne County. Repaired concrete outlet structure.

Cloe Lake, Jefferson County. Repaired outlet gates, installed new fishing pier, reconcreted spillway, installed fish habitat structures, repaired launch ramp, constructed new courtesy dock and dredged 35,000 cubic yards of silt from the lake bottom.

Bradys Bend Access, Armstrong County. Removed launch ramp and installed new poured-in-place ramp.

South Pottstown Access, Schuylkill River,

Chester County. Developed new 14-car, 22 car/trailer and two handicapped parking areas and a 24-foot-wide boat launch ramp.

Walnut Creek Access, Lake Erie, Erie County. Dredged inlet channel in spring and fall. Replaced damaged electrical transformer.

Southcentral Law Enforcement Office, Cumberland County. Installed new roof, closed unused door opening and painted entire building.

Icedale Lake, Chester County. Placed riprap on breached dam breast and seeded slopes.

Struble Lake, Chester County. Dredged launch ramp.

Speedwell Forge Lake, Lancaster County. Constructed handicapped fishing pier, installed new concrete launch ramp and repaired damaged control valve.

Pleasant Gap Maintenance Shop. Installed new insulated windows and closed in areas where windows were not required. Installed ceiling in shop area and painted welding and painting shop.

Shop work. Made numerous bookcases, desks, tables, cupboards, countertops, computer tables and vanities. Repainted equipment, precast 80 concrete boat launch planks, repaired pumps, motors and aerators for various fish culture stations, and fabricated aluminum raceway screens for various fish culture stations. Built three large displays for the Bureau of Education and Information.

Maintenance Section

Performed routine maintenance of all access areas, dams and lakes statewide. Includes mowing approximately 6,000 acres of grass, regrading parking lots and roads, pavement repairs, lake drawdowns, building repairs, installation of culvert pipe, cleaning drainage ditches, and cleaning and repairs to launch ramps, plus the following major projects:

Seal coating. Seal coated parking lots and access roads at Youghiogheny Access, Point Marion Access, Rice's Landing Access, Monongahela Access, Boston Park Access, High Point Access, Virgin Run Lake Access, Springdale Access and Tarentum Access for a total of approximately 50,000 square yards. Cleaned and filled approximately 10,000 linear feet of cracks.

Rose Valley Lake, Lycoming County. Installed new courtesy dock wall.

Oil City Access, Venango County. Poured new concrete launch ramp.

Ephler Access, Berks County. Placed riprap along eroded banks.

Struble Lake, Chester County. Performed

drawdown of lake and installed new concrete launch ramp.

Boiling Springs Lake, Cumberland County. Hauled and placed riprap along shoreline and removed two large trees.

Division of Engineering & Technical Services

Great Bend Borough Access, Susquehanna County. Completed construction design and procurement documents. Further development pending outcome of archeological study.

Peddie Park Access, Clinton County. Completed site plan and consultants conducted a cursory archeological investigation of project site, unearthing several strata that are rich with prehistoric artifacts. Extensive additional archeological investigation will be required before any further progress can be made toward developing boating facilities.

Pine Access, Clinton County. Completed design, construction drawings and procurement documents. Development delayed pending archeological investigations.

Two Mile Run Park, Venango County. Completed design. Construction plans, cost estimates and specifications submitted to Venango County Park Board for approval of joint venture.

Briar Creek Lake, Columbia County. Completed design plans for expanding car-trailer parking lot capacity.

Arroyo Canoe Access, Elk County. Completed design, construction drawings and cost estimates for joint venture with Game Commission and regional government organizations.

Brockway Canoe Access, Jefferson County. Completed design, construction drawings and cost estimate for joint venture with Brockway Borough and Headwaters Council.

Elk Creek, Erie County. Prepared subdivision plans pursuant to property acquisition.

Bellefonte Fish Culture Station, Centre County. Designed interconnection to well #2, hatchhouse and new brood raceways.

Benner Spring Fish Culture Station, Centre County. Redesigned bypass box for water supply to Correctional Industries at Rockview.

Big Spring Fish Culture Station, Cumberland County. Completed design of new station alarm system.

Godfrey Run Unit, Erie County. Designed and completed installation of chain link fence.

Huntsdale Fish Culture Station, Cumberland County. Completed design and awarded contract for installation of chain

*Pennsylvania Fish Commission-
125 years of service*



Special events, exhibits and shows used the Commission's 125th anniversary theme.

Art Michaels



Don Carey



Cheryl Riley

Education chief Steve Ulsh (above) teaches a youngster to cast. Bill Porter (left) is one of 19 in the Volunteer E&I Corps.



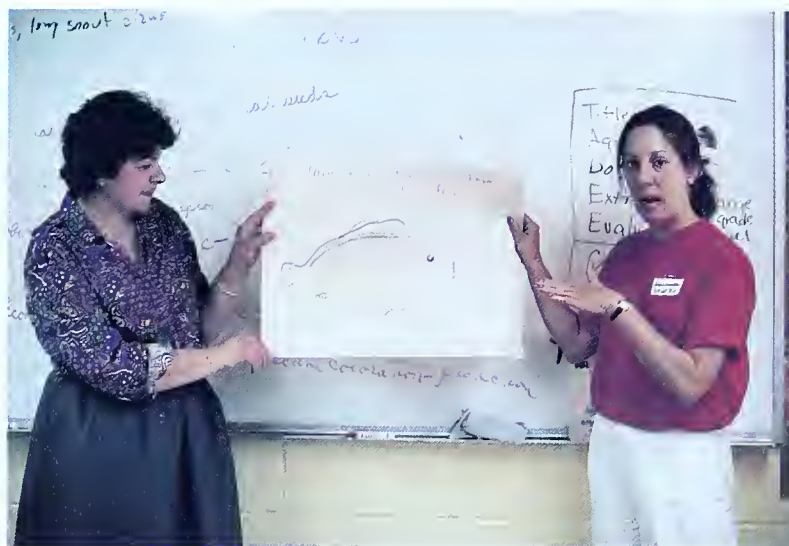
PA Fish Commission

Commission exhibits at sport shows offer license sales, magazine subscriptions, publications and fishing and boating information.



Art Michaels

Family fishing and introducing youngsters to the sport has been a Commission theme.



PA Fish Commission

Teachers in a Commission-led workshop explore ways to teach environmental information.



Don Carey



Art Michaels

Showing anglers how and where to fish is a mainstay of Pennsylvania Angler.



Volunteers labor on an Adopt-a-Stream project on Falling Spring, Franklin County.

Dave Houser

Bureau of Boating



Bureau of Boating mission: Management, promotion and regulation of recreational boating through programs that benefit boaters.

Dan Martin



Dan Martin

Dan Martin



Bureau of Boating

PA Fish Commission



Training water emergency personnel (left, below), including fire and rescue units, is part of the Bureau's Water Rescue Program.



PA Fish Commission

The Bureau of Boating also trains WCOs (left), DWCOs and other Commission employees.



PA Fish Commission

Bureau of Law Enforcement



Dan Martin

The WCO class of 1991 includes (kneeling left to right): Bob Nestor, Don Heiner, Joe Waskin, John Triol and Loretta Sullivan. Standing are Terry Crecraft, Dave Keller, Jim Vatter, Tom Qualters, Richard Valazak, Bruce Gundlach, John Sabaitis, Bryan Bendock, Don Lauver and Jay Redman.

link fence. Began emergency removal of leaking, abandoned fuel tanks as per the Pennsylvania Storage Tank and Spill Prevention Act.

Linesville Fish Culture Station, Crawford County. Designed new hatchhouse effluent treatment system. Procured adjustable speed drives for wells 2 and 3. Designed and contracted new heating and control system for hatchhouse and administration building.

Oswayo Fish Culture Station, Potter County. Designed and contracted new septic system for superintendent's dwelling. Designed and installed a new 2,000-gallon fuel tank for standby generator and stocking truck fuel supply.

Pleasant Gap Fish Culture Station, Centre County. Completed design drawings for Phase II of the meadow raceways. Completed design and began installation of electric distribution system improvements, including standby generator. Designed a power distribution system for the meadow raceways and clarifier.

Tionesta Fish Culture Station, Forest County. Designed sludge drying and storage facility.

Tylersville Fish Culture Station, Clinton County. Selected and installed new oil furnace. Completed design and drawings for hatchhouse and garage renovations.

Pleasant Mount Fish Culture Station, Wayne County. Replaced breaker panel and circuit breakers in superintendent's dwelling. Procured and installed adjustable speed drive for well 1.

Hatchery system. Awarded contract for the removal of fuel tanks that are abandoned or leaking as per the Pennsylvania Storage Tank and Spill Prevention Act.

Proposed fish passage facilities. Completed conceptual plan and profile for Chain Dam and Easton Dam for implementation by the Department of Environmental Resources.

Chesapeake/Susquehanna Access Inventory. Completed work on Pennsylvania's portion of the access inventory.

Dam safety. In compliance with the National Dam Safety Act, annual inspections were completed and reported for the 29 manmade lakes the Fish Commission controls. Besides computing monitoring data, routine repairs and preventive maintenance, the dam program involved many special tasks.

Completed land rights acquisition and permitting process for rebuilding of Fords Lake Dam, Lackawanna County. Completed preliminary designs and estimates for construction of Beaver Creek Dam, Clarion County.

Bureau of Boating

Administration

Despite the recession, the number of boaters continues to increase in Pennsylvania. People aren't buying many boats, but those who do are buying bigger boats with higher horsepower engines than they were 10 years ago. These boaters are "buying up." On the other hand, the type of boat that is experiencing the greatest percentage of growth is the personal watercraft. In many instances, the personal watercraft is becoming the second boat in many boating families.

To cope with this increasing boat population, the Commission has been working in several areas. The first is financial. To maintain our boating programs, adequate sustainable funding is required. The Commission has determined that an increase in boat registration fees is an absolute necessity to maintain current program levels. It has authorized staff to pursue the first increase in registration fees since 1963. The House of Representatives has approved a bill that would raise fees to a level sufficient to fund a modern boating program.

Another issue that has received much attention during the year is mandatory boating education. Many people are calling for a mandated system of boater education to help stem the tide of boat accidents and user conflicts. The Commission believes that no unnecessary regulations should be imposed on the boater. We have strived to see that educational classes are available to everyone who wants them. Unfortunately, those in most need of education are not availing themselves of such opportunities. A bill has been introduced that would make Pennsylvania the third state with a mandatory education program for adult boaters.

Many new regulations were considered by the Commission with the advice of the Boating Advisory Board. Among the regulations approved during the year were a two-year boat registration cycle, restrictions on the operation of personal watercraft, requiring the registration of all boats using Commission facilities, several changes to special regulations at various lakes, and modification to the visual distress signal regulations, rules of the road, buoy systems and permits. Several requests for new and sometimes severe boating restrictions have been requested and investigated on several private lakes.

The Bureau has as its mission the man-

agement, promotion and regulation of recreational boating through programs that benefit boaters by providing efficient administration of boating laws and regulations, improving boating safety and enhancing boating opportunities. It has become a challenging task to accomplish these sometimes conflicting goals. It is a challenge that we willingly accept as the popularity of boating continues to grow.

Boating Safety and Education Division

The Commission's middle and high school level eight-hour Boating and Water Safety Awareness Program continued to grow in 1991. The goal of this program is to instill in youth the knowledge and skills that will make for safer boating in the years to come. This year the emphasis has been to expand this in-water program to camps, parks and recreation departments. Twelve instructor training sessions were scheduled across the state. Certified instructors taught programs at 20 schools and at 75 parks, recreation departments, camps, conservation clubs and other organizations. These instructors taught nearly 3,000 students in the Boating and Water Safety Awareness Program.

A revised Basic Boating Program was introduced by the Commission in 1991. A new handbook titled *Toward Safer Boating* will be used. The program gives boaters a chance to learn basic boating and safety information in an eight-hour course. Topics covered in the course include federal and state boating legal requirements, hull types, propulsion, navigation rules, alcohol, hypothermia, small open boats, capsizing, boating accidents, person overboard, water activities, float plans, environmental conditions and trailering.

Four instructor's workshops were scheduled across the state and four public programs were piloted. Additional public programs will be provided as instructors become available.

The Water Rescue Program, developed in response to a need for training by water emergency personnel, has completed its evolution into a self-sustaining program. The Commission continues to offer instructor-level programs and the Pennsylvania State Fire Academy is now offering the basic water rescue programs across the state. In 1991, more than 1,500 students were certified in water rescue.

Volunteer instructors and student interns were again important to the success of the Boating Safety Education Program. Volun-

teers taught Boating and Water Safety Awareness Programs, revised publications and researched the topics of boat noise and boat titling. They contributed over 2,300 hours of service. Three seasonal boating specialists were hired to meet the steadily increasing demands for boating education.

Over 400,000 brochures were distributed to support the Commission's program to improve boating safety. Favorite publications include *Survival in Cold Water*, *Anglers Know Your Limits* and *Personal Flotation Devices*.

During 1991 the Commission increased its cooperation with the three U.S. Coast Guard Auxiliary districts with flotillas in Pennsylvania. A Commission program for Auxiliarists to assist with checking aids to navigation on Commonwealth waters was expanded to include all parts of Pennsylvania. Commission personnel provided Auxiliary instructors with lesson plans, publications and audiovisual aids, and assisted in teaching their boating safety classes across the state.

Boating accidents were highlighted during 1991 by several high-profile fatal mishaps. Capsizing and falling overboard were again the leading causes of boater deaths. Though there were fewer fatalities than in 1990, all fatal boating accidents were avoidable. Many boating accidents can be prevented if boat operators would act responsibly and know the waters on which they are boating. Commission records indicate that as many as 90 percent of all fatalities in boating accidents could have been prevented if the victims had worn a life jacket.

It is doubtful that any 1991 boating accident victims had taken any kind of boating safety course to prepare themselves with the basic information that could have saved their lives.

Boat Registration Division

For the 1991-92 boating year, more than 318,000 boat renewals were mailed to the boaters of the state. Because of contract problems with the mail sorting vendor, the normal mid-November mailing was delayed until December 24, 1990.

By the end of April over 245,000 boat registrations were renewed. Of the 245,000 registered boats, 210,714 (86 percent) of the boat renewals were processed through the optical scanner. This allows the renewal information to be processed on the Commission's central computer system quickly, and it ensures the quickest returns of valid registration certificates to the boating public. Over 297,000 boats, including 6,100

personal watercraft, were registered. By year's end, boat owners requested over 26,000 duplicate registration certificates.

Generally, boaters expressed their approval of the new two-year boat registration cycle. Many said that the Commission should have done this long ago. Many of the administrative benefits of the two-year registration were not seen during the first year because all 300,000 registrations still had to be handled. The 1992 registration cycle will result in a marked improvement in our ability to respond to registration inquiries. Renewals will be turned around much more quickly because only half as many registrations will be handled. Significant savings in materials and postage costs will also occur.

As a result of the Commission adoption of the new regulation requiring that all boats using Fish Commission accesses carry a current registration, the number of registered unpowered boats has increased. Over 19,000 nonpowered boats were registered, compared to a total of 15,000 in 1990.

Information Systems Division

Reliability can be defined as the extent to which a given procedure yields the same results. This definition describes what computer system users at the Fish Commission notice about the Commission's central computer center, managed by the Fish Commission's Information Systems Division staff. During this past year, the computer systems operated by the Information Systems Division have reliably processed over 301,000 boat registration transactions. More than 57,000 subscriptions to *Pennsylvania Angler*, *Boat Pennsylvania*, and *PLAY* were handled successfully by the Fish Commission's computers. Over 1.1 million fishing licenses, and over 600,000 trout stamps were reliably consigned, allocated, distributed and accounted for by the computer system. Over 10,000 prosecution records, including hundreds of pollution cases, were also handled via Fish Commission computer equipment. Hundreds of reports were created to help managers evaluate their programs. These items are handled so routinely that users can often take such service for granted.

During 1991, the Information Systems Division continued to play an important role in the administration of the Commission by providing the automated technology resources and services that satisfy the Commission's many business needs. Several monumental tasks were performed and

implemented during this past year. Among these was providing the Commission with the necessary computer services for the administration of the Commission's trout stamp program.

Another major service provided this past year was the implementation of a major change in the boat registration system. This change allowed for multi-year boat registrations, and it permitted the Commission to reduce both mailing and administrative costs necessary for each registration cycle. Changes such as these have helped the Commission maintain the cost of a boat registration for 28 years.

A computerized system to track and maintain data regarding scientific collectors was also developed this year. This system allows the Commission to keep accurate, up-to-date records on all persons having permits to collect and possess various species of fish, amphibians and reptiles for educational and scientific purposes. This system saves many hours each year in addition to providing the advantage of computer speed, accuracy and control.

Modifications and enhancements were also made to the Commission's boat registration and magazine subscription systems that provided for additional address-checking features. Such changes enhance customer service by ensuring that correct addresses are placed on the Commission's permanent computer files. This conserves mailing costs by reducing misdirected mail.

The Information Systems Division has also helped more Commission personnel adapt their work to microcomputers, thus making their time more productive and minimizing personnel costs. The dedicated staff of the Information Systems Division is always striving to reduce costs, improve productivity and provide reliable data processing service to the Commission.

Bureau of Law Enforcement

In last year's report we had indicated that a class of new conservation officers would graduate during the 1990-91 fiscal year. This occurred on May 10, 1991, and was probably the most significant event of the year for the bureau.

After a lengthy selection process, 15 candidates were chosen to be hired and trained as waterways conservation officers (WCOs).

A new training program was instituted on August 5, 1990, and our selectees reported to the State Police Academy at Hershey to start their training. The training included all major basic law enforcement subjects, including history of the criminal justice system, laws of evidence, rules of criminal procedure, first aid, CPR, firearms, self-defense, laws of arrest, public speaking, report writing, patrol procedure, human relations and defensive driving.

Our students graduated from the Academy, along with other municipal police officers, on November 9. Although this was the first time we had put our officers through the Act 120 Course, we were pleased with the results, and five of our officers shared all four awards presented: High Academic Award, Outstanding Officer Award, Top Physical Fitness Award, and High Revolver Score (2).

After the Pennsylvania State Police Academy training, the new officers attended the Fish Commission's H.R. Stackhouse School of Fishery Conservation and Watercraft Safety located in the State College area. Subjects presented here were closely related to their primary duties as conservation officers. These included fisheries management, water/boating safety, public relations, pollution investigations, boat accident investigations, fish and boat laws and regulations and other pertinent training. After intense classroom and field training our officers graduated on May 10, 1991.

By the end of the fiscal year, six officers were assigned to districts that had been vacant for some time. The remaining nine conservation officers are awaiting assignments to permanent positions where vacancies are available. They are working primarily in the region where they reside. Their presence in many areas has been helpful to the agency by providing additional services to the public, particularly boating safety patrols.

During the report period a number of retirements, promotions and reassignments took place. Long-time employees Walter Lazusky (regional manager, Northwest) and Robert Perry (regional manager, Southeast) retired from the Fish Commission after completing 31 and 26 years of service respectively. Gary Moore was promoted from assistant supervisor in the Southcentral Region to regional manager, Northwest Region and Barry Pollock was promoted from assistant supervisor, Southeast Region to regional manager in that region. WCO Thomas Kameron was promoted to assistant supervisor for the Southeast Region and WCO Larry Boor was promoted to assistant supervisor for the Southcentral Region.

As in previous years, we continue a very active in-service training program for both deputy waterways conservation officers (DWCOs) and WCOs. All new deputies are required to attend a Basic Training Course before working alone in the field. Additionally, advanced courses are presented. One is mandatory for all deputy waterways conservation officers and the other is optional at this time. All deputies and conservation officers completed recertifications/qualifications in CPR and firearms. Week-long training sessions were also held for all WCOs. This training covered a host of subjects that require updating of information or new items of interest or concern, or matters that are legislatively mandated.

WCOs remained active, performing their primary duties, the enforcement of fishing and boating laws and regulations. Almost 10,000 prosecutions were made for various fishing and boating violations (6,302 fish and 3,603 boat). The most prevalent infractions continue to be fishing without a license, littering, breaking Commission property regulations, carrying an insufficient number of personal flotation devices and not registering boats. The dollar amount of fines increased somewhat because the penalties collected in the second half of the fiscal year were governed by provisions of House Bill 650. This provided an increase in some of the fines in the Fish and Boat Code, some of which had not changed for 30 or 40 years.

Preservation of water quality is more important today than ever for the protection of the aquatic environment, and this is why the bureau takes a very active role in the investigation of water pollutions and stream disturbances and, where necessary, the prosecution of the person(s) responsible for the violation. Our officers cooperate with a number of state and federal agencies in the investigation of pollution/disturbance cases and often also receive assistance and cooperation from those state agencies. Additionally, the general public and Pennsylvania's anglers and boaters in particular have a genuine interest in clean water and they very often insist that the Commission take appropriate action against anyone who causes harm to Pennsylvania's waterways. Some 489 incidents were investigated, with 420 closed via prosecutions or warnings with a total of \$605,575 collected for violations.

In addition, conservation officers also reviewed 399 mine drainage applications and 1,148 stream encroachment applications so that they are aware of future projects that may affect water quality.

It is certainly no secret that WCOs are involved in many other duties aside from law enforcement work. Officers attended and/or participated in 1,199 programs, which included sportsmen's clubs meetings, sport and boat shows, fishing schools, youth camps, school programs, and radio and TV shows. This continues to be a good way for the officer not only to maintain contact with the anglers and boaters of Pennsylvania, but to provide them with valuable information about fishing and boating.

The bureau's operation requires the use of all types of equipment, primarily vehicles and boats. However, there are many other items issued to and used by WCOs in the performance of their duties. One of the most important is a radio communications system. The Commission has its own radio frequencies and "system," allowing contact with other officers and regional offices in most districts. The Fish Commission also has agreements for the use of Pennsylvania Game Commission, DER, State Police and many individual county frequencies and systems, which assist greatly when working with these agencies, coordinating activities and providing help to the public during emergencies.

Officers use various water testing equipment, which permits basic pH and oxygen tests, and they have with them a supply of sample bottles used to collect water samples for shipment to a laboratory for analysis if a pollution is suspected. Officers carry a "throw" bag, which can be used to effect the rescue of persons who may be in water and need assistance.

Bureau of Fisheries

Division of Fisheries Management

The Division of Fisheries Management is comprised of field personnel and central office staff. The field personnel includes eight area fisheries managers and their support staffs of one biologist and eight technicians. They are assigned on a drainage area basis. The central office staff includes two clerical personnel and a seasonal clerk-typist, a technical group of specialists, a herpetology and endangered species coordinator, a coldwater unit leader and technician, and a warmwater unit leader and technician.

The bulk of the Division's time was spent between two Dingell-Johnson Wallop-Breaux

Act funded projects: (1) Fisheries Management Project and (2) the Technical Guidance Project.

The Fisheries Management Project is designed to collect baseline data and information necessary to manage Pennsylvania's diverse fisheries. The project includes documentation of the quality and quantity of Pennsylvania's fisheries, the development and implementation of management plans, the dissemination of project data to anglers, and the evaluation of management techniques (such as stocking, habitat manipulation, size and creel limits) vital to optimum development of management plans. A cross section of the Commonwealth's fisheries resources received attention from management personnel. From frequent water chemistry checks to intensive fish population studies, more than 150 streams and rivers from unstocked brook trout streams to most of the major rivers were worked in fiscal year 1990-91. Some three dozen reservoirs and lakes surveyed ranged in size from a small pond to Pymatuning Reservoir.

The Technical Guidance Project covers a variety of disciplines within the Commission, including fisheries management. The project provides guidance to other regulatory bodies, groups, institutions and individuals on the specific effect their activity or the activity of others regulated by them has on the resource. It is essential that such bodies, groups, institutions and individuals (who will affect Pennsylvania's fisheries and fisheries habitat) be provided with sound technically oriented guidance and information that will be useful in making decisions.

The staff performed a substantial amount of technical guidance service to a variety of requestors. Subjects included: cooperative nursery perspective site evaluations, river dredging, hydropower projects on numerous waters, mine reclamation, small pond management, herbiciding, fish flesh contamination, fish kill investigations and hearings, landfills, mining permit applications, priority waterway surveys, Adopt-a-Stream applications, collecting fish for contaminant analysis, effect of erosion and sedimentation, water allocations, stream encroachments, DER water quality issues, operation of fish passage facilities, lake drawdowns, watershed land use, solid waste site development, superfund sites, habitat improvement and wetlands encroachments.

The Operation FUTURE Task Force continued to serve as a forum for Commission communications on ideas for the future management of Commonwealth fishery resources. During the fiscal year, emphasis was given on initiatives for managing the

Commonwealth's fisheries resources.

In addition to surveying waters and providing technical guidance on the Commonwealth's fisheries, the staff has conducted or participated in numerous studies or endeavors. Mostly as part of the fisheries management Dingell-Johnson project, they are intended to provide additional insights into the Commonwealth's fisheries or to undertake implementation of management plans.

Fiscal year 1990-91 saw an interesting blend of activities aimed at evaluating management techniques (i.e., stocking, no stocking, habitat manipulation, and special regulation), assessing angler use and harvest on select waterways as well as determining angler attitudes and opinions about existing and proposed management plans and direction.

Of the resource user

Angler use-and-harvest studies were conducted during the spring on portions of Penns Creek, Centre County, and following an inseason stocking of Lake Luxembourg, Bucks County.

Anglers fishing Little Buffalo Lake (Perry County), Lake Nockamixon (Bucks County), Memorial Lake (Lebanon County) and Frances Slocum Lake (Luzerne County) during the opening days of the 1991 bass season were surveyed on Big Bass regulations (15-inch minimum size limit and a four bass daily creel limit) proposed for these waters. The majority of bass anglers favored the proposed regulations.

Commission creel clerks completed angler use, harvest and opinion surveys on Conewago Lake (York County), Blue Marsh Reservoir (Berks County) and Lake Arthur (Butler County) during the fall of 1990. The intent of the work was to evaluate conditions of these fisheries following the 1987 implementation of Conservation Lake Regulations and to generate information for comparison to similar angler surveys on the same water in 1986. Data analyses are still under way, but angler use increased significantly as did the abundance and quality of select sportfish populations.

During late fiscal year 1989-90 and into fiscal year 1990-91, 1,350 anglers along Pennsylvania's major smallmouth bass rivers were interviewed about fishing activities and attitudes on smallmouth bass fishing as well as specific size, season and creel regulations. Of the anglers contacted, 1,044 were smallmouth bass anglers. In addition, the September 1990 *Pennsylvania Angler* contained a mail-in questionnaire to elicit responses to similar questions from smallmouth bass anglers. Over 1,200 reader responses were

used in the statewide survey. A majority of respondees supported implementation of more restrictive regulations. As such, the Commission implemented a 12-inch minimum size limit on rivers and streams and a closed spring season effective in 1991. Also, a stretch of the Susquehanna River from Dock Street Dam downstream to Holtwood Dam was added to the Big Bass Program (15-inch minimum size and four bass daily limit).

In May, through a contract with the University of Pittsburgh, a telephone survey of licensed anglers began to generate information on angler participation, preferences and opinions on Commission coldwater programs. Eventually 1,600 trout anglers will be interviewed along with 400 to 500 nontrout anglers.

Angler use and harvest of smelt in select tributaries of Raystown Lake (Huntingdon County) were evaluated with seasonal employees during the early spring of 1991. Because of frequent high stream flows, the evaluation may not be indicative of the level of use or of the yield of smelt. However, an estimated 1,523 angler trips were made to dip smelt from four study streams with a total harvest estimated at 33,074 smelt.

In March, seasonal creel clerks began a nine-month study of Raystown Lake anglers. The purpose is to generate baseline information on angler use, harvest and opinions on the fishery and its management.

Of the resource

Several streams were evaluated as candidates for the catchable trout stocking program and others were inventoried for updating management plans. Efforts continued to monitor stream sections managed for wild trout (no stocking) and to document the status of trout populations in yet uninventoried waters. Waters in the Limestone Springs Wild Trout Program, three in the Trophy Trout Program and several in the Catch-and-Release Program were reassessed in the long-term commitment to evaluate the use of "no-kill" and other restrictive regulations in the management of Pennsylvania's renewable nature resource—wild trout.

Efforts were made to determine and evaluate candidate waters for special regulations. In addition to work on waterways proposed for Commission action in fiscal year 1991-92, the following were approved in fiscal year 1990-91: three delayed-harvest, artificial-lures-only areas; two delayed-harvest, fly-fishing-only areas (converted from fly fishing only); one trophy trout area; one conservation lake; 14 big bass lakes (including Lake Erie); and two special lake programs.

PA Fish Commission



PA Fish Commission

Fish Stocking Statistics — 1990-91 Fiscal Year

State-Federal Stocking Program

Coldwater Fisheries

Number of streams stocked with adult trout	804
Miles of streams stocked with adult trout	4,967
Acres of streams stocked with adult trout	22,745
Number of lakes stocked with adult trout	114
Acres of lakes stocked with adult trout	8,450

Totals

Number of Areas Stocked	918
Number of Miles Stocked	4,967
Number of Acres Stocked	31,195

Number of coldwater fish (trout and salmon) stocked:

Fry	0
Fingerling	4,289,183
Adult	4,863,822
Total	9,153,005

Warm/Coolwater Fisheries

Number of warm/coolwater areas stocked	145
Miles of warm/coolwater streams stocked	246
Miles of warm/coolwater rivers stocked	933
Acres of warm/coolwater ponds and lakes stocked	92,805

Totals

Number of Areas Stocked	145
Number of Miles Stocked	1,179
Number of Acres Stocked	92,805

Number of warm/coolwater fish stocked:

Fry	109,173,150
Fingerling	1,971,923
Adult	12,668
Total	111,157,741

**GRAND TOTAL OF
ALL SPECIES STOCKED**

120,310,746

Record of Fish Stocked July 1, 1990, to June 30, 1991



State/Federal Stocking Program

TROUT	<i>FRY</i>	<i>FINGERLING</i>		<i>ADULT</i>		<i>GRAND TOTAL</i>	
<i>Species</i>	<i>Number</i>	<i>Number</i>	<i>Weight</i>	<i>Number</i>	<i>Weight</i>	<i>Number</i>	<i>Weight</i>
Brook trout	-	190,000	2,267	1,260,985	593,750	1,450,985	596,017
Brown trout	-	1,547,938	27,765	1,896,233	859,534	3,444,171	887,299
Rainbow trout	-	588,945	9,807	1,625,762	774,774	2,214,707	784,581
Palomino rbw trout	-	-	-	8,842	21,329	8,842	21,329
Lake trout	-	32,000	2,432	-	-	32,000	2,432
Steelhead trout	-	615,100	36,125	72,000	14,400	687,100	50,525
TOTAL TROUT	-	2,973,983	78,396	4,863,822	2,263,787	7,837,805	2,342,183
SALMON							
Atlantic salmon	-	27,650	2,119	-	-	27,650	2,119
Chinook salmon	-	200,000	2,020	-	-	200,000	2,020
Coho salmon	-	1,007,000	81,962	-	-	1,007,000	81,962
Kokanee salmon	-	80,550	238	-	-	80,550	238
TOTAL SALMON	-	1,315,200	86,339	-	-	1,315,200	86,339
FORAGE							
Emerald shiner	-	-	-	4,600	23	4,600	23
Fathead minnow	-	-	-	5,100	12	5,100	12
Golden shiner	-	84,000	80	-	-	84,000	80
TOTAL FORAGE	-	84,000	80	9,700	35	93,700	115
GAMEFISH							
American shad	13,077,900	91,000	693	-	-	13,168,900	693
Amur pike	-	1,878	417	-	-	1,878	417
Chain pickerel	-	2,850	86	-	-	2,850	86
Largemouth bass	-	31,715	236	169	250	31,884	486
Muskellunge - P	-	89,117	3,394	-	-	89,117	3,394
Muskellunge - T	-	99,890	8,765	-	-	99,890	8,765
Northern pike	-	3,650	460	-	-	3,650	460
Saugeye	1,000,000	6,300	34	-	-	1,006,300	34
Smallmouth bass	-	10,415	22	-	-	10,415	22
Striped bass	100,000	177,341	130	-	-	277,341	130
Striped bass x white bass	-	48,150	72	-	-	48,150	72
Walleye	94,995,250	1,062,137	4,324	-	-	96,057,387	4,324
TOTAL GAMEFISH	109,173,150	1,624,443	18,633	169	250	110,797,762	18,883
PANFISH							
Black crappie	-	83,000	417	402	275	83,402	692
Bluegill	-	-	-	2,275	859	2,275	859
Brown bullhead	-	-	-	57	35	57	35
Channel catfish	-	139,425	3,015	45	38	139,470	3,053
Redear sunfish	-	41,055	17	-	-	41,055	17
White sucker	-	-	-	05	05	05	05
Yellow perch	-	-	-	15	07	15	07
TOTAL PANFISH	-	263,480	3,449	2,799	1,219	266,279	4,668
GRAND TOTAL	109,173,150	6,261,106	186,897	4,876,490	2,265,291	120,310,746	2,452,188

State Hatcheries

TROUT							
Brook trout	-	190,000	2,267	1,260,985	593,750	1,450,985	596,017
Brown trout	-	1,547,938	27,765	1,896,233	859,534	3,444,171	887,299
Rainbow trout	-	588,945	9,807	1,539,974	719,571	2,128,919	729,378
Palomino rbw trout	-	-	-	8,842	21,329	8,842	21,329
Lake trout	-	32,000	2,432	-	-	32,000	2,432
Steelhead trout	-	615,100	36,125	72,000	14,400	687,100	50,525
TOTAL TROUT	-	2,973,983	78,396	4,778,034	2,208,584	7,752,017	2,286,980
SALMON							
Atlantic salmon	-	10,150	68	-	-	10,150	68
Chinook salmon	-	200,000	2,020	-	-	200,000	2,020
Coho salmon	-	1,007,000	81,962	-	-	1,007,000	81,962
Kokanee salmon	-	80,550	238	-	-	80,550	238
TOTAL SALMON	-	1,297,700	84,288	-	-	1,297,700	84,288
FORAGE							
Emerald shiner	-	-	-	-	-	-	-
Fathead minnow	-	-	-	5,100	12	5,100	12
Golden shiner	-	-	-	-	-	-	-
TOTAL FORAGE	-	-	-	5,100	12	5,100	12
GAMEFISH							
American shad	13,077,900	91,000	693	-	-	13,168,900	693
Amur pike	-	1,878	417	-	-	1,878	417
Chain pickerel	-	2,850	86	-	-	2,850	86
Largemouth bass	-	31,715	236	169	250	31,884	486
Muskellunge - P	-	89,117	3,394	-	-	89,117	3,394
Muskellunge - T	-	99,890	8,765	-	-	99,890	8,765
Northern pike	-	3,650	460	-	-	3,650	460
Saugeye	1,000,000	6,300	34	-	-	1,006,300	34

State Hatcheries (continued)

GAMEFISH (continued)	<i>FRY</i>	<i>FINGERLING</i>		<i>ADULT</i>		<i>GRAND TOTAL</i>	
<i>Species</i>	<i>Number</i>	<i>Number</i>	<i>Weight</i>	<i>Number</i>	<i>Weight</i>	<i>Number</i>	<i>Weight</i>
Smallmouth bass	-	-	-	-	-	-	-
Striped bass	-	16,341	26	-	-	16,341	26
Striped bass x white bass	-	48,150	72	-	-	48,150	72
Walleye	94,995,250	1,062,137	4,324	-	-	96,057,387	4,324
TOTAL GAMEFISH	109,073,150	1,453,028	18,507	169	250	110,526,347	18,757
PANFISH							
Black crappie	-	83,000	417	402	275	83,402	692
Bluegill	-	-	-	2,275	859	2,275	859
Brown bullhead	-	-	-	57	35	57	35
Channel catfish	-	-	-	45	38	45	38
Redear sunfish	-	-	-	-	-	-	-
White sucker	-	-	-	05	05	05	05
Yellow perch	-	-	-	15	07	15	07
TOTAL PANFISH	-	83,000	417	2,799	1,219	85,799	1,636
GRAND TOTAL	109,073,150	5,807,711	181,608	4,786,102	2,210,065	119,666,963	2,391,673

Division of Warm/Coolwater Production *Fish Stocked July 1, 1990, to June 30, 1991*

Lake trout	0	32,000	2,432	0	0	32,000	2,432
Atlantic salmon	0	10,150	68	0	0	10,150	68
Atlantic salmon, Code 61	0	17,500	2,051	0	0	17,500	2,051
Total:						27,650	2,119
Kokanee salmon	0	80,550	238	0	0	80,550	238
American shad	13,077,900	91,000	693	0	0	13,168,900	693
Amur pike hybrid	0	1,878	417	0	0	1,878	417
Chain pickerel	0	2,850	86	0	0	2,850	8
Largemouth bass	0	31,715	236	169	250	31,884	486
Muskellunge, (P)	0	89,117	3,394	0	0	89,117	3,394
Muskellunge, (T)	0	99,890	8,765	0	0	99,890	8,765
Northern pike	0	3,650	460	0	0	3,650	460
Saugeye	1,000,000	6,300	34	0	0	1,006,300	34
Smallmouth bass, Code 61	0	10,415	22	0	0	10,415	22
Striped bass	0	16,341	26	0	0	16,341	26
Striped bass, Code 61	100,000	161,000	104	0	0	261,000	104
Total:						277,341	130
Striped bass hybrids	0	48,150	72	0	0	48,150	72
Walleye	94,995,250	1,062,137	4,324	0	0	96,057,387	4,324
Forage	0	0	5,100	12	0	5,100	12
Forage, Code 61	0	84,000	80	4,600	23	88,600	103
Panfish	0	83,000	417	2,799	1,219	85,799	1,636
Panfish, Code 61	0	180,480	3,032	0	0	180,480	3,032
Total:						266,279	4,668
GRAND TOTAL:	109,173,150	2,112,123	26,951	12,668	1,504	111,297,941	28,455

Note: Code 61 are fish that were supplied from state exchange programs.

	<i>FRY</i>	<i>FINGERLING</i>	<i>ADULT</i>	<i>TOTAL</i>
Benner Spring FCS	Gamefish	74,266		74,266
Total Fish Stocked:				74,266
Benner Spring Research	Gamefish	99,569		99,569
Huntsdale FCS	Gamefish	26,541,500		26,680,151
	Gamefish-61	100,000		136,415
	Panfish-61	83,930		83,930
Total Fish Stocked:				26,900,496
Linesville FCS	Lake Trout	32,000		32,000
	Gamefish	26,954,250	100	27,057,440
	Panfish		2,799	2,799
	Panfish-61	47,400		47,400
	Forage-61		4,600	4,600
Total Fish Stocked:				27,144,239
Pleasant Mount FCS	Atlantic salmon	10,150		10,150
	Atlantic salmon-61	17,500		17,500
	Kokanee salmon	80,550		80,550
	Gamefish	21,187,500	69	21,986,204
	Gamefish-61	135,000		135,000
	Panfish	83,000		83,000
	Panfish-61	49,150		49,150
	Forage-61	84,000		84,000
Total Fish Stocked:				22,445,554
Tionesta FCS	Gamefish	18,967,000		19,115,300
	Forage	5,100		5,100
Total Fish Stocked:				19,120,400
Union City FCS	Gamefish	2,345,000		2,415,517
Total Fish Stocked:				2,415,517
Van Dyke	Gamefish	13,077,900		13,097,900
Total Fish Stocked:				13,097,900



Fisheries Management personnel (right and below) electrofish to determine the quality and quantity of fish populations. Netting on some waterways (center photo) is another sampling technique.



From unstocked brook trout streams to major rivers, more than 150 waterways were evaluated in fiscal year 1990-91.



Russ Gettig



Division of Fisheries Management

Cheryl Riley



PA Fish Commission

Bureau of Law Enforcement personnel, Bureau of Fisheries personnel and volunteers (left) stock a Dauphin County stream.

Proposed also were changes in smelt regulations at Raystown Lake, striped bass regulations on the Delaware River and trout regulations on the West Branch of the Delaware River.

In terms of warmwater/coolwater fisheries, surveys of numerous lakes, reservoirs, streams and rivers provided information to area fisheries managers on the need for maintenance stockings of species including but not limited to channel catfish, muskellunge, hybrid striped bass and other sportfishes, as well as forage species including gizzard shad and various shiners.

The evaluation of walleye stocking continued with several waters studied with the use of oxytetracycline (OTC) marked walleye stocked in the spring (fry), in early summer (small fingerling), or in later summer (large fingerling). The mark formed in the otolith, or inner ear bone, from OTC is a very effective way to distinguish hatchery fry and fingerling walleye from those of wild stock.

Intensive netting and electrofishing operations occurred on the 10 Conservation Regulation Lakes as part of the evaluation thereof. Bass populations in a number of lakes and reservoirs were studied to establish a database on Pennsylvania bass and to determine candidates for the Big Bass Program, which became effective in January 1991. Studies on the quality and quantity of the Commonwealth's smallmouth bass populations continued with a number of sampling sites on numerous streams and rivers as part of monitoring populations in response to changes in regulations.

Herpetology & endangered species

The staff specialist presented slide lectures on Pennsylvania amphibians, reptiles, fish and aquatic organisms, including those considered endangered, threatened or of indeterminate status, to a variety of audiences. Other activity included: participated in instruction of WCOs and DWCOs; participated in Wild Resource Conservation Board meetings; processed scientific collectors' permits, over 500 individual rattlesnake hunter permits, and 13 organized amphibian and reptile hunt permits; responded to numerous correspondence and telephone requests for information about amphibians, reptiles, and endangered species; participated in a meeting of the Nature Conservancy, Wildlands Trust Company, western Pennsylvania; participated in meetings of the Herpetology Advisory Committee and in meetings of the Pennsylvania Biological Survey Steering Committee, and NE

Nongame Technical Committee; conducted field habitat surveys for species of special concern; reviewed several contracts for species of special concern life history and status survey work under auspices of the Wild Resource Conservation Fund; and provided various commentary to consulting groups and agencies concerning endangered and threatened species and their habitats.

Education and information

The staff continued to work with the angling public, with fellow Commission personnel and with individuals from the private and public agency sector regarding Fish Commission programs and the resources for which we are responsible. These efforts included:

1) Participated at cooperative nursery regional meetings, regional law enforcement (including deputies) meetings, hatchery superintendent meetings, and sessions with administrative staff with presentations on fisheries programs.

2) Took part in sessions with personnel from a wide cross section of public and private agencies and organizations having influence on the use or the administration of use of fishery resources.

Attended fishing expos and tournaments to provide displays, demonstrations and opportunities for participants and attendees to learn more about the Fish Commission. Included were Eastern Sport Show at Harrisburg, Susquehanna River Festival, and News Media Appreciation Day (Wallenpaupack).

Provided newspaper, magazine, radio and TV coverage on a variety of topics ranging from the very specific (management of an individual water) to the very general (entire Fish Commission programs or fisheries available in Pennsylvania).

Gave numerous lectures, demonstrations and slide presentations to groups ranging from unorganized anglers observing a field survey to formal meetings of statewide organizations, educational groups and civic groups.

Worked with the Bureau of Education and Information on the preparation of the 1992 license summary booklet and a new fish identification publication. Provided general information on individual species and management programs, reviewed proposed articles, and provided information to outside authors for *Angler* use.

Continued student intern program.

Processed many requests for information by professional and lay individuals, often with detailed responses.

General administration

Highlights included: coordinated statewide maintenance/acquisition of fisheries management supplies, materials and equipment; continued construction of standardized flatbottom boat electrofishing and lighting systems; updated Pennsylvania Annual Recreation Plan; reviewed draft resource management plans for select state parks; participated in regional seminars on trout management for Trout Unlimited. Participated in inservice training on job performance expectations and SEAP (State Employees Assistance Program); inspected aquaculture facilities requesting to culture tilapia; attended budgeting/purchasing training; attended annual meeting with Ohio fisheries personnel on management of Pymatuning Reservoir; provided information on fish age/growth/abundance to various fisheries researchers across the country; met with Pennsylvania Power & Light on management of Lake Chillisquaque; helped with Allegheny River mussel survey; reviewed items associated with Dock Street Dam proposal (Susquehanna River); met with numerous clubs and organizations; requested and reviewed inquiries from DER on stream reclassification (Chapter 93); and one member attended the Northeast Fish & Wildlife Conference.

Other items

Collected 10 million eggs of American shad from the Delaware River for the restoration program; prepared annual requests for Warmwater/Coolwater Production, prepared and submitted end-of-year (calendar) report to USFWS on the Fisheries Management D-J project; stocked various species, participated in joint Fisheries Management/Environmental Services surveys; participated in several pollution investigation and testimony efforts; completed the analysis and reporting of several studies; and updated the management plans for dozens of waters.

Evaluated liming project on Mountain Springs Lake (Luzerne County) as a means to provide seasonal stocked trout fishery; conducted fish salvage operations at Laurel Hill Lake (Somerset County) and Leaser Lake (Lehigh County); prepared paddlefish restoration plan for Allegheny and Ohio rivers; participated in hosting 1990 annual meeting of the American Fisheries Society in Pittsburgh; provided training on various topics to new WCOs; met with the National Park Service on the Bushkill area office and other matters in the Delaware Water Gap National Recreation Area; developed program for use of triploid grass carp in aquatic veg-

etation management; and met with Pennsylvania Gas & Water Company regarding opening of streams and reservoirs.

Division of Research

American shad restoration effort

The Van Dyke Research Station for Anadromous Fish continued to investigate techniques to culture American shad as a part of the Susquehanna River Anadromous Fish Restoration Committee's (SRAFR) program. During the spring of 1991, 33 egg shipments were received for a total of almost 18 million viable eggs from four river systems (Susquehanna, Delaware, Hudson and Connecticut).

American shad fry were stocked in the Juniata River at Thompsettown (7.2 million), the Susquehanna River below Conowingo Dam (4.9 million), the Lehigh River (793,000) and the Schuylkill River (75,000). An additional 1.3 million fry were released into ponds for research or grow-out. All fry releases in the Juniata River were coordinated with the U.S. Fish and Wildlife Service, National Fishery Research and Development Lab to facilitate its studies of post-stocking mortality and predation. In addition to the fry releases, approximately 90,000 American shad fingerlings were released in the Juniata River in the fall of 1990. An additional 163,000 were reared by the Maryland DNR and released in the Upper Chesapeake Bay below Conowingo Dam.

Otoliths of all stocked American shad were tagged with tetracycline. Fingerlings were tagged by feeding tetracycline-laced feed. Fry were released with the unique tags based on egg-source river, stocking location, or time-of-day stocked. Tag retention studies on outmigrating fish in the fall of 1991 helped determine appropriate management scenarios for subsequent years.

Analysis of tagged otoliths from juvenile shad outmigrating during the fall of 1990 indicated that the majority of the outmigrants were of hatchery origin. Some 247 of 265 juveniles collected above Conowingo Dam were hatchery fish and 31 of 59 juveniles collected below Conowingo Dam were hatchery stock. Recovery of fry that had been uniquely marked according to egg source river indicated that Hudson River fry survived best (relative survival 1.00) followed by Virginia River fry (.12), and Delaware River fry (.06). The origin of adult American shad returning to Conowingo Dam was determined using otolith microstructure. An estimated 73 percent of the 15,964 adults caught in

the trap in spring of 1990 originated in the hatchery. Thus, the Van Dyke hatchery continues to be the key component of American shad restoration on the Susquehanna River.

Fish culture research initiatives

Research efforts directed toward resolving problems with the culture of coolwater fishes included the following studies: 1) "Rearing of walleye fry, advanced fry and fingerlings, differentially marked with tetracycline, for use in Fisheries Management stocking experiments"; 2) "Pond rearing of walleye fry in ponds with standard fertilization, versus those with a modified fertilization regime"; 3) "Differences in survival and growth of pond-reared walleye when stocked as 20- to 30-day-old advanced fry, reared intensively prior to stocking, versus those stocked as swimup fry"; 4) "Conversion of two-inch pond-reared walleye fingerlings to dry feed, in rectangular rearing units, using three different diets;" 5) "Occurrence of the 'bloat' syndrome in two groups of purebred muskellunge, each receiving a different dry diet, and a group receiving a weekly prophylactic treatment of Romet"; 6) "Initial rearing density for purebred muskellunge fry, in rectangular rearing units, in the Benner Spring Diet Development Laboratory."

Lake Erie research

The Lake Erie Research Unit continued to direct its attention to assessment and evaluation of the important fish stocks and fisheries in Lake Erie, through actions in concert with several fishery task groups under the aegis of the Great Lakes Fish Commission. Two important Lake Erie fish stocks, the yellow perch and walleye, are exhibiting declining trends in abundance. Fishermen should anticipate fewer catches in 1992. The prodigious walleye and perch populations of a few years ago were the product of once-in-a-decade giant year classes. Today's fish stocks do not support such abundance of younger groups, and consequently, catch quotas are being considered that will portray a more conservative exploitation.

Other notable changes in the Lake Erie fish populations include the unexpected proliferation of the whitefish. At one time whitefish stocks dominated the lake's fisheries, but then suffered massive declines after the expansion of smelt in the 1940s and 1950s. It is interesting to note the recent synchrony of smelt declines and the appearance of strong whitefish year classes in Lake Erie. This

phenomenon will be studied more thoroughly in the future because the smelt is also the major forage fish that supports Lake Erie's predator species—including the walleye, salmonid fishes, yellow perch and smallmouth bass.

The rehabilitation of Lake Erie lake trout stocks requires the annual release of yearling trout to establish initial recruitment, assessment of the effects of sea lamprey control and monitoring of the population over the next decade. Statistics taken from assessment surveys show that lake trout still experience higher mortality rates than trout in other Great Lakes, but Lake Erie trout grow faster and mature at earlier ages; recent surveys regularly find lake trout approaching 15 pounds. It appears that the goal of establishing a lake trout population, which approaches historical size of about 34,000 adult fish, will be feasible by the end of the 1990s. Sea lamprey assessment reveals this parasite's population levels are substantially below the pre-1986 control levels, and its recent effect on lake trout and other salmonids has been minimal.

The cooperation of volunteer angler log participants has provided data on the Lake Erie sport fishery since 1987. The latest evaluation of the cooperators' data by the Lake Erie Research Unit indicates the highest catch rates are found for yellow perch followed by smallmouth bass, walleye, coho and steelhead. The largest numbers harvested by the cooperators were walleye, followed by yellow perch, smallmouth bass, white perch, steelhead and coho salmon. Although trends of the sport fishery generally reflect trends in the fish populations, the target species of this select group of anglers may not reflect the status of the whole fisheries community.

Fish health management

In 1985 the Pennsylvania Fish Commission adopted a policy on fish health management and disease control. It included an operating procedure for fish transfer and disease control with the goal of reducing or eliminating serious fish diseases. The adoption of this policy resulted in increased involvement of the Pathology Unit in evaluating the suitability of proposed fish and fish egg transfers. Included in the disease control effort is an annual hatchery inspection program to detect the presence of certifiable fish pathogens at 13 production facilities. The results of these inspections are used to develop accurate disease classifications.

Other disease management measures include the following research initiatives:

1) Infectious pancreatic necrosis and bacterial kidney disease; 2) Iodophor disinfection of eggs and sperm; and 3) Surveillance and validation of eye anomalies.

During fiscal year 1990, a total of 134 pathological investigations were conducted to assist management staff at Fish Commission production facilities. A total of 274 disorders were detected during these investigations. Gill disease, systemic viral and bacterial infections, and external parasites were the most commonly detected pathological problems.

Brood stock development

Selection programs have been developed by systematically spawning single pairs of brood fish and producing families that are then evaluated separately. An individual egg jar incubation unit has been developed for fish culture programs and is now functioning at all brood stock facilities. Program guidance in brood stock selection has been given to personnel at each facility and standard procedures using pair spawning and family selection have been developed. Research continued on the development of the following salmonid strains: 1) A virus-resistant brook trout strain selected from parents free of detectable virus (Benner Spring, Oswayo and Reynoldsdale Fish Culture stations); 2) a brook trout strain resistant to the bacterial disease—furunculosis selected from survivors of laboratory induced disease; 3) a rainbow trout strain that spawns twice a year (developed in cooperation with USFWS geneticists); 4) a virus-free brown trout that is resistant to the bacterial disease furunculosis (Huntsdale Fish Culture Station); 5) the Avington strain of rainbow trout that we are evaluating for fast growth and spring spawning, and 6) the Seeforellen brown trout strain selected from a late-run brown trout transferred from Germany in 1978. This fish is adapted to large, deep impoundments, and is a Pennsylvania coho salmon strain developed from brood stock returning to Lake Erie tributaries.

Permit coordination

Fish culture stations that were granted the combined Department of Environmental Resources/National Pollutant Discharge Elimination System (DER/NPDES) industrial waste permits before July 1, 1990, were monitored monthly or bimonthly in accordance with their effluent discharge permit requirements. These fish culture stations include: Bellefonte, Benner Spring, Big Spring, Cedar Spring, Corry, Fairview, Huntsdale, Linesville, Oswayo, Pleasant Gap,

Pleasant Mount, Reynoldsdale, Tionesta, Tylersville, Union City, Upper Spring Creek and Van Dyke.

Renewed DER/NPDES permits were received for the following fish culture stations: Oswayo (12/10/90), Corry (01/07/91), and Union City (02/25/91). Amended DER/NPDES permits were received for the following fish culture stations: Upper Spring Creek (08/23/90), Cedar Spring (09/04/90), Tylersville (09/04/90), Bellefonte (06/06/91), Benner Spring (06/06/91), and Pleasant Gap (06/06/91).

Water quality lab

During fiscal year 1990, a total of 2,704 water and sludge samples were submitted to the Benner Spring Water Quality Lab for analysis. These samples required 7,169 physical, chemical and bacteriological tests. Of the tests performed, 52 percent are required by permits, 46 percent support fish production operations, and two percent support other programs.

Cooperative Nursery Unit

As of June 30, 1991, Unit files list 149 sponsors and 182 nursery sites located in 50 counties. This number includes four warmwater nurseries and one coolwater nursery.

Five sponsors failed to send in their annual reports, which accounts for the lower number in this report of fish stocked.

During the fiscal year, two new sponsors and one experimental project sponsor were approved and added to the ranks. Sheffield Rod & Gun Club, Warren County; Hillside Rod and Gun Club, Tioga County (this club was a former sponsor years ago); and the experimental nursery that is a striped bass rearing operation. This facility purchases commercial fish and rears them in a closed system to be stocked at two to three inches in Raystown Lake. It is sponsored by the Raystown Striper Club.

Of the 149 sponsors listed, 14 are on inactive status, several because of lack of interest in the sponsoring organization. A number of these will be deleted from the program in the new fiscal year.

Also listed are 17 prospective sites (eight for present sponsors and nine for potential new sponsors).

The Benner Spring, Oswayo and Reynoldsdale Fish Culture stations furnished 1,162,650 fingerling trout, including 487,750 brook trout, 244,450 brown trout, 426,550 rainbow trout and 3,900 palomino trout. The

Tionesta Fish Culture Station furnished 150,000 eyed Pennsylvania steelhead eggs and the New York State Salmon River Hatchery furnished 250,000 green Chinook salmon eggs to an Erie County sponsor. The Linesville Fish Culture Station furnished six quarts of green walleye eggs to the Erie County Coolwater Nursery and 21,000 largemouth bass fry to four warmwater units. Cooperative Nursery Unit staff seeded each bass pond with several quarts of daphnia as starter feed for the fry.

During the fiscal year, coldwater nursery units stocked 949,022 catchable salmonids, which included 399,719 brook trout, 221,401 brown trout, 326,278 rainbow trout and 1,624 palomino trout. In addition, nursery units stocked 108,785 steelhead trout and 161,800 chinook salmon.

The total projected weight of these fish was 591,214 pounds with an average length of 11 inches at a cost of 29 cents per fish and 47 cents per pound. Of the total salmonids released, 16,067 were 0+ years old; 869,914 were one+ years old; 61,353 were two+ years old and 1,688 were three+ years old.

Four warmwater bass nurseries stocked a total of 5,804 largemouth bass ranging in size from three to 12 inches. The coolwater bass nursery unit stocked 600,000 quarter-inch walleye fry into Presque Isle Bay, Erie County.

Production costs for the salmonid nurseries was \$242,713.92 with \$214,760.23 spend for 680,228 pounds of food fed. The balance was spend on electricity for lighting and aeration.

A total of 156,826 hours was expended in the nursery operation and \$148,951.67 was spent for improvements to nurseries.

Nursery sponsors conducted 176 special fishing events for children and handicapped individuals.

Cooperative Nursery Unit personnel worked 5,410 hours of which 3,072 were spent at headquarters and 2,338 were spent in the field. Staff members traveled 58,172 miles to conduct 552 inspections of which 400 were routine; 56, emergency; 21, unscheduled; nine, construction and 66, prospective sites. Staff attended 12 established, four prospective sponsor and five Commission meetings. They also completed four largemouth bass fry and daphnia deliveries. They assisted one sponsor with its stocking program, and attended the annual Bureau of Fisheries meeting and the two fish culture station managers/assistant managers meetings.

Staff also planned, conducted and participated in four regional cooperative nursery

sponsor seminars with 63 percent participation by the sponsors.

Two regional seminars had to be canceled under the state's budget problems last spring, but these seminars were rescheduled for early fall in the new fiscal year.

Coop Sponsor Longevity

In 1991, the following sponsors reached longevity milestones in the Cooperative Nursery Program. Most notable are the three that reached the 40-year mark. We are proud of these sponsors and their dedication to the program and to the fisheries of Pennsylvania.

40 Years

Mill Creek Rod & Gun Club, Lebanon County.
Queen City Sportsmen Trout Rearing Committee, Lehigh County.
Western Clinton Sportsmen Association, Clinton County.

35 Years

Bald Eagle Sportsmen Club, Blair County.
Mohnton Fish & Game Protective Association, Berks County.
Eldred Conservation Club, McKean County.

30 Years

Mercersburg Sportsmen Association, Franklin County.
Yellow Breeches Anglers & Conservationists, Cumberland County.
Penn Dutch Sportsmen, Lancaster County.
Consolidated Sportsmen of Muncy Creek, Lycoming County.
Cross Fork Sportsmen, Potter County.

25 Years

South Gibson Conservation Club, Susquehanna County.
3 C. U. Trout Association, Erie County.
Morris Rod & Gun Club, Tioga County.

20 Years

Central Conservation Club, Susquehanna County.
Fort Indiantown Gap Fish & Game Association, Lebanon County.
Mechanicsburg Sportsmen Association, Cumberland County.
Quittapahilla Rod & Gun Club, Dauphin County.
Rabbit Run Fish & Game, Schuylkill County.
Southern Lancaster County Farmers Sportsmen Association, Lancaster County.
West Caln Sportsmen Club, Chester County.
Farnsworth Trout Club, Warren County.
C. V. Anglers Association, Tioga County.

Office of Chief Counsel and Environmental Services

The Office of Chief Counsel and Environmental Services provides legal and environmental services to the Fish Commission. The office also acts as liaison with other state and federal agencies.

Chief counsel

The last year has been marked by several very significant legal developments. The Fish Commission's chief counsel has participated in important litigation to define the role of the Fish Commission and in personnel-related issues.

On March 14, 1991, the Fish Commission voted unanimously to authorize its counsel to initiate litigation to seek declaratory and injunctive relief with regard to the independent agency status of the Fish Commission. Faced with severe General Fund budget problems, the Administration imposed numerous controls on state agencies. These controls included proposed reductions in pay for management and non-represented employees, requiring approvals of discretionary personnel actions and imposing additional reviews of contracts for goods and services. Even though the Fish Commission is an independent agency that receives no General Fund money to support its day-to-day operations, the Administration attempted to impose the same controls on the Fish Commission that it applied to executive agencies under the governor's jurisdiction.

On April 12, 1991, the Fish Commission and the Game Commission filed separate actions in the Commonwealth Court seeking declaratory and injunctive relief with regard to the attempted imposition of controls on Commission activities and pay. The Commission sought a preliminary injunction to enjoin the continued imposition of these controls on this agency. After a hearing before Judge Francis Barry, a preliminary injunction was issued to stop the imposition of policy controls on the Fish Commission. The Administration appealed to the Pennsylvania Supreme Court, which declined to stay the preliminary injunction.

The preliminary injunction is only the first step in this litigation. Important issues relating to the meaning and effect of the Fish Commission's status as an independent,

special-fund agency remain before the Commonwealth Court. After further proceedings, the Court should issue a ruling that clarifies the degree to which the Fish Commission and its day-to-day operations are subject to the policy supervision and control of the governor.

The Fish Commission was also involved in important litigation before the Commonwealth Court related to personnel issues. In 1987, a Commission hatchery employee wrote and circulated a petition in which he disparaged his supervisors. When he later applied for promotion to a management position, he was not selected. He filed a complaint alleging that his non-selection was the result of his actions in writing, circulating and distributing the petition. The Commonwealth Court ruled that management was permitted to consider the employee's actions as a merit factor in promotion decisions. This decision, which followed precedents established in the federal courts and other states, helped clarify the limits on so-called "work-place free-speech" claims.

In March 1990, two state senators filed suit challenging the Fish Commission's trout/salmon stamp regulations. The suit was withdrawn after the General Assembly enacted an amendment to the Fish and Boat Code specifically authorizing the trout/salmon stamp regulations but limiting the price of the stamp to \$5 per year. The trout/salmon stamp program was implemented on schedule in January 1991, with very good results. The Commission's chief counsel has also been involved in contract issues relating to the trout/salmon stamp prints produced and marketed by an independent contractor.

Environmental cases continue to demand a great deal of attention by the chief counsel. The Commission received a final decision of the Environmental Hearing Board in a case involving surface mining of coal within the 100-foot stream setback area. The Dock Street Dam litigation continues before the Environmental Hearing Board and the Federal Energy Regulatory Commission. The Fish Commission participated in multi-party, multi-agency settlements of several complex environmental cases, including the Texas Eastern Pipeline Case, involving PCBs, and the Buckeye oil spill matter.

The restoration of migratory fish to the Susquehanna River moved forward with further implementation of settlements arising out of litigation before the Federal Energy Regulatory Commission. On May 9, 1991, the Philadelphia Electric Company dedicated a new fish lift at Conowingo Dam in Mary-

land. This new lift contributed to the best year yet in the continuing efforts to restore American shad to the Susquehanna River. The Fish Commission is currently involved in negotiations with the operators of the three hydrodams in Pennsylvania on permanent fish passage facilities for these dams.

Pennsylvania law provides that taxes paid on gasoline consumed by boats operated on state waters will be paid to the Boat Fund. The chief counsel participated in proceedings before the Board of Finance and Revenue on the 1991 refund of boat fuel taxes to the Boat Fund.

The chief counsel also participated in a wide variety of legal, real estate and regulatory issues that come before the Commission.

Environmental and Technical Liaison

The Commission's Environmental and Technical Liaison, Robert Hesser, serves as the agency representative on a host of projects. He acts as the Commission liaison with the Susquehanna and Delaware River Basin commissions, the Chesapeake Living Resources Team, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the Pennsylvania departments of Health, Agriculture and Environmental Services.

The Fish Commission has continued to work with the departments of Health and Environmental Services on fish flesh contamination issues. The Commission assists in gathering fish for test and in informing anglers when any action levels are exceeded. The Department of Health is responsible for identifying health risks and the Department of Environmental Resources actually tests the fish for contaminants.

The Fish Commission cooperates with the Department of Agriculture and other agencies on the Pennsylvania Pesticide Advisory Board. This Board, which includes the Commission's Environmental and Technical Liaison, advises the state with regard to pesticide-related issues and regulations.

On January 1, 1991, the Fish Commission implemented new regulations on permits for drawing down impounded waters. The Environmental and Technical Liaison designed the new streamlined regulatory program and is responsible for reviewing applications for permits to draw down waters.

The biological and technical aspects of the restoration of American shad to the Susquehanna and Delaware rivers continue to command the Fish Commission's close attention. On the Susquehanna, the last year

was particularly significant with the opening of the new Conowingo Dam fish lift and the increase in stocks of migrating American shad. The Delaware River Anadromous Fish Restoration Program continues to move forward.

The Environmental and Technical Liaison also represents the Fish Commission in technical committees related to striped bass, sturgeon and other species working under the Mid-Atlantic Fisheries Management Council and the Atlantic States Marine Fisheries Committee.

Division of Environmental Services (DES)

The Commission's role in resource protection is very well defined within the Fish and Boat Code. Several sections of law dealing with pollution (Section 2504) and disturbance of waterways and watersheds (Section 2502) provide the basis for reacting to environmental problems. Although the Commission has limited proactive authority and is not a direct regulator of industry, impact prediction and prevention are very important to fulfilling the Commission's mandate of encouraging, promoting and developing the fishery interests. The Commonwealth has many highly industrialized areas that have the potential to come in conflict with the aquatic resources and recreational use of surface waters. Unless some regulatory control is placed on population and industrial growth, we are at risk of increasing the numbers of miles of streams and rivers already lost to various forms of pollution.

Permit review

The Division of Environmental Services (DES) coordinates the permit review and damage assessment program both internally among the various Fish Commission bureaus and externally with other state and federal agencies. Although much of the permit review work involves desktop reviews of technical information, many field trips and heated discussions develop on controversial projects. These discussions usually result in a well-balanced plan designed to prevent or minimize both short- and long-term damage to the resource. There are times when a satisfactory resolution cannot be reached and the regulatory agency, usually DER, is forced to balance the social, economic and scientific issues. Sometimes the agency must take a firm stand on projects that have the potential to affect aquatic

resources severely. For example, in 1990 the Commission along with the U.S. Fish and Wildlife Service and the state of West Virginia appealed the Federal Energy Regulatory Commission's licensing of 16 hydroelectric projects in the upper Ohio River basin.

The technical assistance provided to other agencies in the permit review program takes up a large amount of staff time. However, the time spent preventing impacts can be ultimately deducted from the time budgeted for assessing impacts. The following table summarizes the actual number of permit applications reviewed by Division staff in fiscal year 1990-91.

Permit Application Reviews

Reviews	Number
DER Stream/	
Wetland Encroachments	968
DER Sewerage	66
DER Mining	371
DER Solid Waste	56
DER Water Allocations	53
DER Flood Control Projects	18
DER Earth Disturbance	8
PennDOT Projects	214
FERC Hydropower Projects	13
COE 404 Public Notices	242
EA's	167
PFC Blasting	42

The following list contains examples of some controversial permit reviews:

- Cuffs Run Hydro Project, York County.
- UAJANPDES Permit, Spring Creek, Centre County.
- Seven Springs Municipal Authority, Water Allocation Permit, Somerset County.
- Dock Street Dam, Dauphin County.
- Ohio River Hydro Licensing.
- Townsend Dam, Beaver River, Beaver County.
- Wondermall, Allegheny County.
- Swatara State Park, Lebanon County.
- Raystown Lake Study, Huntingdon County.
- Concord Resources Hazardous Waste Landfill, Clarion County.
- R&P Coal Company, Indiana County.
- Flowers Marina, Erie County.

Enforcement

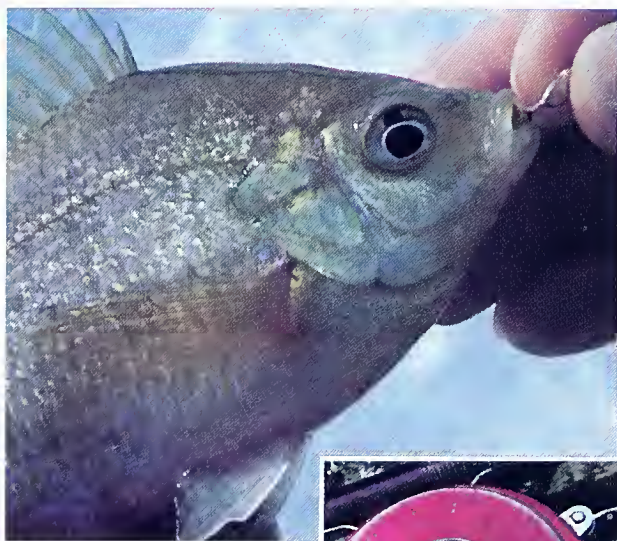
The other major DES program involves assessing natural resource damages as a result of pollution or stream and wetland disturbances. Technical staff assist waterways conservation officers during the investigation and prosecution of Fish and Boat Code violations. Staff biologists survey affected waters, estimate population and community damages and help calculate penalties for resource and recreational use loss. Expert witness testimony is provided in criminal and civil hearings to support these damage claims.

Law Enforcement officers prosecuted more than 6,300 fish law violations and more than 3,600 boating violations in fiscal year 1990-91.



Art Michaels

Pennsylvania Fish Commission



*PA Fish Commission
Russ Cettig*



During fiscal year 1990-91, 149 sponsors at 182 cooperative nursery sites stocked more than 1.2 million fish.



Russ Cettig

The Commission stocked more than 120.3 million fish in fiscal year 1990-91, up nine million from the previous year.



PA Fish Commission

PA Fish Commission

The Commission stocked nearly 5,000 stream miles and 114 lakes with adult trout in fiscal year 1990-91.



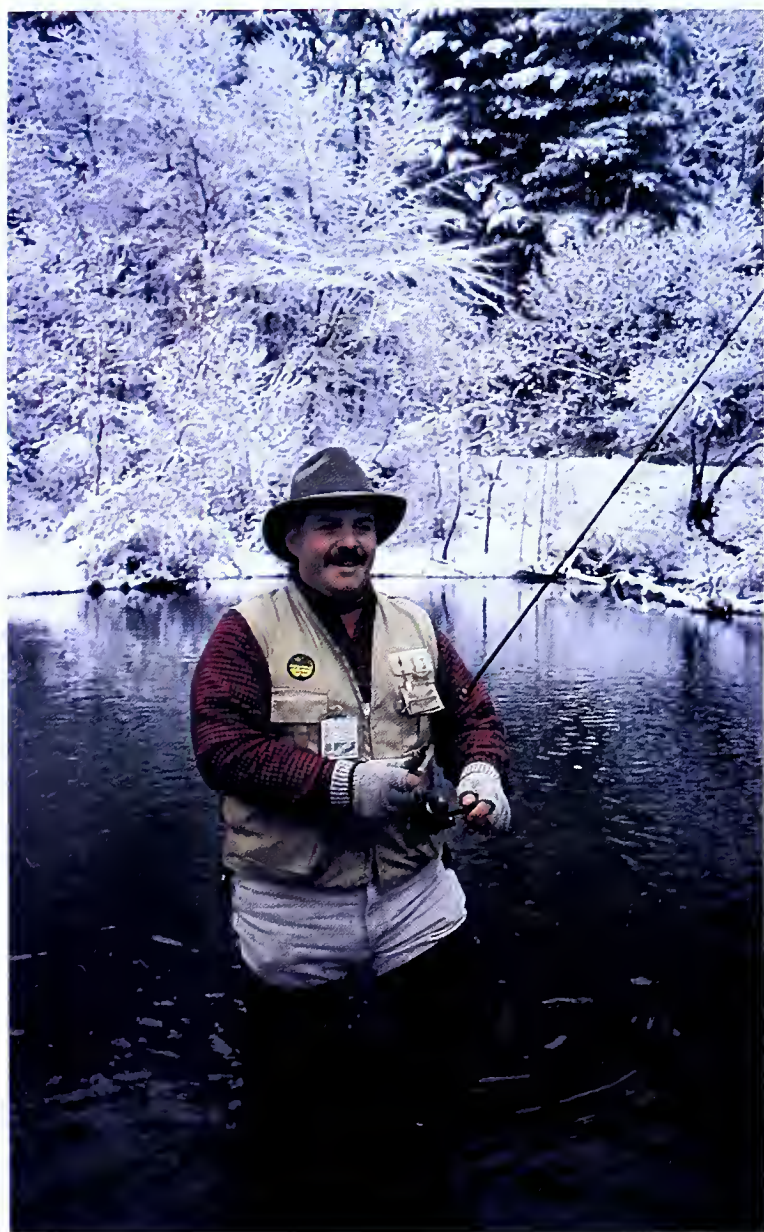
PA Fish Commission

Commission biologists collect insects as part of their waterway evaluations.

*The
Commission
access area
system
consists of
more than
250
developed
properties.*



Art Michaels



Bob Garman



*Anglers (above) try their luck on
Walnut Creek, Erie County.*

Russ Gettig

Several major pollutions have led to extensive damage and significant monetary settlements. Portions of several major pollution settlements have been set aside to improve our knowledge about the resource. Most notably \$1.75 million of the Commission and DER settlement of the 1988 Ashland Oil Spill on the Monongahela and Ohio rivers is now funding a one-year recreational use study and five-year aquatic habitat study. These studies will not only provide the information necessary to manage the Three Rivers better, but will also form the basis for future damage assessment claims. Additionally, \$1.25 million has been placed in a restricted account in the Fish Fund to be used for monitoring streams recovering from damages from Texas Eastern PCB discharges and also for laboratory research designed to assess the effects of PCBs on fish health.

A list of several major enforcement cases that DES staff has been involved with in fiscal year 1990-91 follows:

- Buckeye pipeline break, Armstrong County.
- Texas Eastern PCBs.
- Pennzoil Exploration & Production Company, NW PA.
- Benjamin Coal Company bankruptcy.
- American Refining Company, Deer Creek, Allegheny County.
- DR Hydro, Youghiogheny River, Somerset and Fayette counties.
- PennDOT, Fulton and Lycoming counties.
- McDonald Land and Mining Co., Wilson and Snyder runs, Clearfield County.
- HOGO, Inc., Perry County.
- B&P Railroad spill, Buffalo Creek, Armstrong County.
- HRI, Inc., Nittany Creek, Centre County.
- Private landowner pesticide spill, Shobers Run, Bedford County.

Special projects

Several special studies were conducted throughout the year and warrant mentioning. A study of 12 lakes across the Commonwealth looked at mercury levels in fish tissue because of recent concerns from similar studies in Florida and Wisconsin lakes. Walleye from Lake Wallenpaupack were the only fish that exceeded the FDA action level of 1 ppm, which caused an advisory to be posted. The mercury is suspected to be present in acid deposition or mobilized from an area's geology because of increased acidity associated with acid rain.

Further refinements to wetted perimeter techniques were accomplished to support the Commission's position on minimum flows necessary to sustain fish populations. Diversion wells providing alkalinity to Babbs

Creek, Tioga County, to treat sources of acid mine drainage (AMD) were studied along with wetlands on East Sandy Creek, Clarion County, which were also designed to treat AMD. Brook trout were sampled for contaminant analysis downstream of an abandoned tar pit on Wolf Run, Elk County, as part of a U.S. Forest Service environmental assessment. Staff also assisted in the coordination of the construction of a fish ladder at Ole Bull State Park, Potter County. Staff also participated in a Soil Conservation Service hydrologic unit study of the Mill and Pequea Creek watersheds, Lancaster County, and a U.S. Geological Survey study of the lower Susquehanna River basin.

Bureau of Administrative Services

The Bureau of Administrative Services provides behind-the-scenes support for the primary programs of the Fish Commission. These functions include the issuance of fishing licenses and trout/salmon permits, purchasing and procurement of goods and services, warehousing and inventory, payroll and personnel, labor relations, training, fiscal planning, budget preparation and expenditure review, vehicle fleet management, telecommunications, insurance, management methods consulting, issuance of special permits and licenses, duplicating, mail and messenger services, federal aid coordination, recycling, sale of surplus property, and other related support services.

Federal Aid Section

The Federal Aid Section prepared and submitted formal documentation for federal assistance on two new projects and seven new project segments during the fiscal year ending June 30, 1991. Total reimbursements for all federal projects were \$4,881,682, an increase of \$697,576 over the prior year's reimbursements. Revenues were distributed as follows:

Fish Fund	\$3,768,526
Boat Fund	<u>1,113,156</u>
Total	\$4,881,682

Fishing License Section

This section appoints and works with approximately 1,700 issuing agents, which include county treasurers and private busi-

nesses in Pennsylvania, New Jersey and Ohio. Agents' reports are received and audited with revenues deposited daily to ensure maximum interest.

<i>License category</i>	<i>Price</i>	<i>No. issued</i>
Resident	\$12.00	959,686
Senior resident	2.00	28,718
Non-resident	20.00	71,026
7-Day tourist	15.00	19,642
Lifetime	10.00	16,472
Trout/salmon permits	5.00	614,495

Personnel Section

The Personnel Section develops and implements human resource management programs for Fish Commission employees, including recruitment and selection, classification and pay, employee benefits, personnel/payroll transactions, training, safety, affirmative action, performance evaluation and labor relations.

Some highlights and accomplishments of the Personnel Section during the 1990-91 fiscal year include:

- **Payroll/transactions.** A major payroll system conversion was implemented by the employees in the Personnel Section as part of the overhaul of the state's computer system.
- **Recruitment and selection.** In conjunction with the Civil Service Commission, tests were administered to candidates for fish hatchery superintendent and foreman positions. Tests were also open for aspiring waterways conservation officers that produced a new class of 15 well-trained officers who are now serving in various regions across the state.
- **Performance standards and evaluation.** With the guidance and training of the personnel officer, performance standards have been established for all Commission personnel. In addition, the Personnel Section designed and implemented new forms, instructions and procedures for measuring job performance.
- **Labor relations.** Statewide contract talks have concluded with the union and a two-year pact, which calls for no pay increase the first year, has been ratified and signed.

Procurement and Warehousing Section

Significant improvements have been made in the Harrisburg warehouse, including the installation of modern storage racks, improved shipping facilities, and tighter inventory control. Work is continuing on the redesign and computerization of the entire purchasing and inventory systems of the Commission.

Offices Services Section

This section implemented a mail-handling contract that generated an annual savings of about \$30,000 to \$40,000 in postage costs. Also, to keep pace with increased demands from anglers and boaters for printed materials, the duplicating shop has been beefed up and work flow made more efficient.

Automotive and Telecommunications Section

The employee in charge of this section produced and distributed a vehicle operator's handbook for Commission personnel who dispatch or operate vehicles. This manual will help ensure that Fish Commission vehicles are operated safely and economically, and that servicing and preventive maintenance are done regularly. In addition, the Automotive and Telecommunications Officer coordinated the training and testing for commercial drivers licenses that are now required for drivers of large trucks.

Budget Section

The employees in this section coordinate and produce the Commission's annual budget and rebudget, monitor expenditures and revenues, and make projections and recommendations to ensure the fiscal stability of the agency.

Comptroller's Report Fiscal Year 1990-91

The fiscal year 1990-91 balance sheets and statements of unreserved fund balance for the Fish and Boat funds were prepared in accordance with Generally Accepted Accounting Principles (GAAP).

All other statements included with this report were prepared on a cash basis of accounting combined with an encumbrance budgetary system and as such are consistent with those of the previous year.

Fish Fund

Actual revenue deposited in the Fish Fund during the 1990-91 fiscal year was \$23,545,237, an increase of \$2,493,878, or 12 percent, over actual deposits in fiscal year

1989-90. Revenues of \$3,072,475 were collected for the trout/salmon permit in its initial implementation year. Federal reimbursements increased \$491,135 partially because of deposits in July and August 1990, which were applicable to the 1989-90 fiscal year. Refunds not credited to an appropriation were \$358,787 primarily consisting of a State Workmen's Insurance Fund rebate of \$345,856. Offsetting these increases were decreases in resident fishing licenses, down \$630,776; reimbursement for the Van Dyke Shad Station, down \$89,211; and interest on securities, down \$71,545.

Expenditures and commitments for the Fish Fund totaled \$23,654,220 in the 1990-91 fiscal year, an increase of \$2,060,210, or 10 percent, over last year's total. Significant increases were reported for salaries, wages and benefits, up \$1,473,471; land acquisition, up \$666,498 (Fish Fund portion of Elk Creek Access purchase); maintenance materials and supplies, up \$117,799; specialized services, up \$129,673; and auditor general expenses, up \$62,408. Offsetting these increases were decreases in truck costs, down \$133,408; EDP equipment purchases, down \$117,580; building and structures, down \$111,121; travel, down \$60,703; automobiles, down \$65,454; and fish food costs, down \$53,746.

The June 30, 1991, unreserved/undesignated fund balance prepared on a GAAP basis was \$11,921,460, an increase of \$816,762, or seven percent, over last year's balance.

Boat Fund

Actual revenue deposited in the Boat Fund for 1990-91 fiscal year was \$5,404,624, a decrease of \$441,534, or eight percent, from last year's balance. This decrease is primarily the result of liquid fuels tax payments for the 1988 and 1989 fiscal years received in 1989-90, which inflated last year's totals. As a result, liquid fuels tax revenue collections for fiscal year 1990-91 are down \$1,373,411 from fiscal year 1989-90. Interest on securities dropped \$66,686. Offsetting the decreases were increases in motorboat registrations, up \$777,986 because of two-year renewals implemented in fiscal year 1990-91, and a Coast Guard grant money increase of \$174,943.

Expenditures and commitments totaled \$5,533,779, and \$166,779, which were three percent more than last year's totals. Significant increases were reported for salaries, wages and benefits, up \$405,366; and land acquisition, up \$130,962 (Boat Fund portion of Elk Creek Access purchase). Offsetting these increases were decreases in motorized

equipment expenses, down \$45,289; auditor general services, down \$37,222; contracted repairs, down \$37,192; and EDP equipment purchases, down \$36,230.

The June 30, 1991, unreserved/undesignated fund balance in the Boat Fund prepared on a GAAP basis was \$4,029,545, a decrease of \$116,846, or three percent, from last year's balance.

Fish Fund

Expenditures and Commitments by Division

Posted July 1, 1990, to June 30, 1991

Executive Office	\$ 299,466
Bureau of Education and Information	1,032,286
Bureau of Administrative Services	1,629,241
Bureau of Fisheries — Administration	560,923
Fisheries Management	1,460,383
Fisheries Research	821,998
Warmwater/Coolwater Propagation	2,784,298
Trout Production	5,935,562
Bureau of Property and Facilities Management	174,486
Architecture & Engineering Administration	139,657
Engineering Section	134,780
Architecture Section	90,537
Special Projects	39,392
Dam Safety Section	69,039
Property Services	1,022,480
Construction & Maintenance Administration	114,397
Construction Section	1,058,091
Property Maintenance Section	820,597
Bureau of Boating	189,387
Law Enforcement	4,339,985
Chief Counsel	179,288
Environmental Services	381,117
Comptroller	318,750

Fish Fund General Operations Total **23,596,140**

Treasury —
General Obligations —
Debt Service 58,080

Total Expenditures and Commitments
\$23,654,220

Fish Fund Revenue

Deposited July 1, 1990, to June 30, 1991

Licenses and Fees:Current Year	
Resident Fishing — Regular	\$ 11,516,234
Resident Fishing — Senior	57,436
Lifetime Fishing — Senior Residents	164,715
Non-Resident Fishing	1,420,522
Tourist Fishing	294,631
PA League of Angling Youth	9,659
Fishing Lake Licenses	20,800
Miscellaneous Permits	20,905
Commercial Hatchery	7,870
Scientific Collectors' Permits	5,245
Lake Erie	2,655
Trout/Salmon Permit	3,072,475
H. R. Stackhouse Facilities User	2,265
Total Licenses and Fees	\$ 16,595,412
Fines and Penalties:	
Fish Law Fines	\$ 275,020
Miscellaneous Revenue:	
Interest on Securities & Deposits	794,271
Income from Sand & Gravel Dredging	313,936
Miscellaneous Revenue	101,156
Reimbursement of Van Dyke Shad	
Station Operations Costs	61,307
Refund of Expenditures Not Crediting	
an Appropriation	387,226
Sale of <i>Pennsylvania Angler</i> Subscriptions	280,311
Restitution for Fish Killed	638,174
Stores Inventory Receipts —	
DWCOs	7,980
Rental of Fish Commission Property	20,747
Sale of Patches	217
Sale of Recreational Items	11,304
Sale of Publications	42,154
Sale of Unserviceable Property	5,386
Royalty Payments	8,717
In-Lieu Payments for Fishways	75,000
Total Miscellaneous Revenue	\$ 2,747,886
Total Nontax Revenue	\$ 19,618,318
Augmentations:	
Federal Aid	\$ 3,768,527
Sale of Vehicles	51,812
Reimbursement/PA Conservation Corp	106,580
Total Augmentations	\$ 3,926,919
Total Revenue in Fish Fund	\$ 23,545,237

Pennsylvania anglers purchased more than 1,095,500 licenses in all categories and more than 614,400 trout/salmon permits during fiscal year 1990-91.

Fish Fund

Statement of Unreserved Fund Balance

For the Fiscal Year Ended June 30, 1991

Fund Balance — Unreserved/Undesignated,	
June 30, 1990	\$11,104,698
Add:Actual Cash Receipts, July 1, 1990	
through June 30, 1991	\$23,545,237
Revenue earned as of 06/30/90	
and deposited in 1990-91	(853,187)
Revenue earned but not received as of 06/30/91	
Licenses & Fees	\$ 46,303
Fines and Penalties	5,189
Miscellaneous Revenue	2,400
Interest on Short Term Investments	69,717
Due from Federal Gov't (Grants)	726,286
Due from Other Funds	35,000
Total Revenue accrued but	
not received as of 06/30/91	\$ 884,895
Total Revenue Earned During 1990-91	23,576,945
Lapses from prior year appropriations	284,838
Unreserved/Undesignated Fund Balance	34,966,481
Before Commitments and Expenditures	
Deduct: Current Year Expenditures and	
Commitments posted from 7/1/90	23,654,220
through 6/30/91	
Reversal of Commitment and	
Expenditure accrual for 1989-90	(113,600)
Expenditure Accruals as of 6/30/91	1,495,281
Commitments liquidated against	
6/30/91 expenditure accruals	(1,990,880)
Total Expenditures and Commitments	23,045,021
incurred for fiscal year 1990-91	
Fund Balance—	
Unreserved/Undesignated, 6/30/91	\$11,921,460

Boat Fund

Expenditures and Commitments by Division

Posted July 1, 1990, to June 30, 1991

Executive Office	\$ 43,709
Bureau of Education and Information	341,732
Bureau of Administrative Services	351,610
Bureau of Property and Facilities Management	65,027
Architecture & Engineering Administration	63,924
Engineering Section	60,085
Architecture Section	30,677
Special Projects	17,985
Dam Safety Section	31,740
Property Services	205,848
Construction & Maintenance Administration	52,587
Construction Section	286,520
Property Maintenance Section	492,122
Bureau of Boating	1,189,190
Law Enforcement	2,225,060
Chief Counsel	17,713
Comptroller	56,250
Boat Fund General Operations Total	5,531,779
Department of General Services -	
General State Authority Rentals	2,000
Total Expenditures and Commitments	\$5,533,779

Boat Fund Revenue

Deposited July 1, 1990, to June 30, 1991

Current Year Licenses and Fees:

Motorboat Registration	\$2,226,144
Boat Mooring Permits	29,953
Boat Capacity Plate Fees	<u>5,602</u>
Total Licenses and Fees	\$2,261,699

Fines and Penalties:

Motor Boat Fines	\$ 118,468
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Miscellaneous Revenue:

Reimbursement from	
Motor License & Liquid	
Fuels Tax Fund	\$1,573,589
Interest on Securities	235,629
Miscellaneous Revenue -	
Fish Commission	15,094
Sale of Boat PA	
Subscriptions	30,252
Sale of Unserviceable	
Property	16,954
Sales Tax Agent Fees	<u>32,196</u>
Total	
Miscellaneous	
Revenue	\$1,903,714

Total Nontax	
Revenue	4,283,881

Augmentations:

Sport Fish Restoration	\$ 226,175
Sale of Vehicles	7,587
U.S. Coast Guard/	
Grant/Boat/Safety	<u>886,981</u>
Total	
Augmentations	\$1,120,743

Grand Total

All Revenue	
in Boat Fund	<u>\$5,404,624</u>

***Boaters
registered more
than 297,000
boats in
Pennsylvania in
fiscal year
1990-91.***

Classification of Expenditures and Commitments

(Posted July 1, 1990, to June 30, 1991, from Current Appropriations)

*Charged To Charged To Combined Funds,
Fish Fund Boat Fund Expenditures and
Commitments*

Personnel Services

Salaries and Wages	\$10,962,607	\$ 2,912,116	\$13,874,723
Employee Benefits - State Share	<u>4,419,365</u>	<u>667,749</u>	<u>5,087,114</u>
Personnel Services Total	\$15,381,972	\$ 3,579,865	\$18,961,837

Operational Expenses

Fish Food	\$ 760,479	\$ -0-	\$ 760,479
Vehicle Maintenance -			
Gasoline, Oil, Repairs, etc.	494,387	100,868	595,255
Printing and Advertising	412,389	174,849	587,238
Utilities (Electricity, Heat, Water)	762,084	26,399	788,483
Payment to Other State Agencies for			
Services Rendered	337,541	25,067	362,608
Maintenance Materials and Supplies for			
Construction, Repairs and Upkeep	439,690	106,240	545,930
Postage	192,854	225,178	418,032
Telephone Expenses	223,989	49,340	273,329
Travel Expenses	169,543	47,085	216,628
Maintenance and Rental of Office,			
Copying, Tabulating and EDP Equip.	247,300	93,100	340,400
Contracted Maintenance Services of			
PFC Buildings and Grounds	173,704	52,852	226,556
Rental of Buildings for Office and			
Storage	184,894	104,851	289,745
Contracted Specialized Services			
(Legal, Consulting, etc.)	735,733	196,491	932,224
Purchase of Uniforms, Clothing,			
Footwear	97,734	22,655	120,389
Special Conference Expenses	70,311	25,526	95,837
Laboratory Supplies, Drugs, and			
Chemicals	43,154	458	43,612
Insurance - Liability, Surety, Fidelity	56,936	26,532	83,468
Other Supplies (Office, Educational,			
etc.) and Services	<u>400,801</u>	<u>132,464</u>	<u>533,265</u>
Operational Expenses Total	\$ 5,803,523	\$ 1,409,955	\$ 7,213,478

Fixed Assets (Capital Improvements)

Purchase of Automobiles, Trucks, and			
Watercraft	\$ 399,496	\$ 303,483	\$ 702,979
Access Area Development and			
Improvements to Lakes and Streams	324,891	10,777	335,668
Building Improvements to New and			
Existing Structures	151,190	1,066	152,256
Machinery and Equipment	528,854	51,382	580,236
Radio Equipment Purchases	51,122	20,941	72,063
Purchases of EDP Equipment	155,720	15,940	171,660
Office Equipment, Furniture, and			
Furnishings	56,028	4,400	60,428
Land Acquisitions	<u>676,518</u>	<u>131,000</u>	<u>807,518</u>
Fixed Assets Total	\$ 2,343,819	\$ 538,989	\$ 2,882,808

Grants and Subsidies	<u>66,826</u>	<u>2,970</u>	<u>69,796</u>
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Pennsylvania Fish Commission

General Operations Total	23,596,140	5,531,779	29,127,919
Treasury - General Obligations Debt			
Service	<u>58,080</u>	<u>2,000</u>	<u>60,080</u>

Total Expenditures

and Commitments	<u>\$23,654,220</u>	<u>\$ 5,533,779</u>	<u>\$29,187,999</u>
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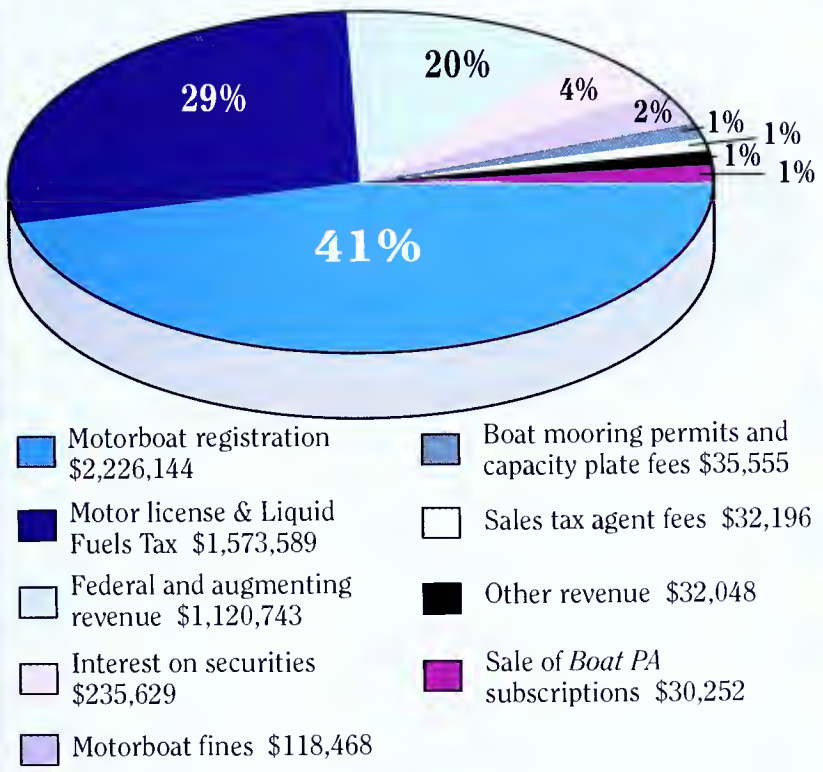
Boat Fund Statement of Unreserved Fund Balance

For the Fiscal Year Ended June 30, 1991

Fund Balance — Unreserved/Undesignated, June 30, 1990	\$4,146,391
Add: Actual Cash Receipts, July 1, 1990, through June 30, 1991	\$5,404,625
Revenue earned as of 06/30/90 and deposited in 1990-91	(992,790)
Revenue earned but not received as of 06/30/91	
Licenses & Fees	\$ 15,924
Fines and Penalties	3,527
Miscellaneous Revenue	519
Interest on Short Term Investments	10,248
Due from Other Funds	883,000
Due from Federal Gov't (Grants)	52,430
Total Revenue accrued but not received as of 06/30/91	\$ 965,648
Total Revenue Earned During 1990-91	5,337,483
Lapses from prior year appropriations	313,596
Unreserved/Undesignated Fund Balance Before Commitments and Expenditures	9,837,470
Deduct: Current Year Expenditures and Commitments posted from 7/1/90 through 6/30/91	5,533,779
Reversal of Expenditure Accrual	(22,668)
Expenditure Accruals as of 6/30/91	296,814
Fund Balance—Unreserved/Undesignated, 6/30/91	\$4,029,545

Boat Fund Revenue Deposited July 1, 1990, to June 30, 1991

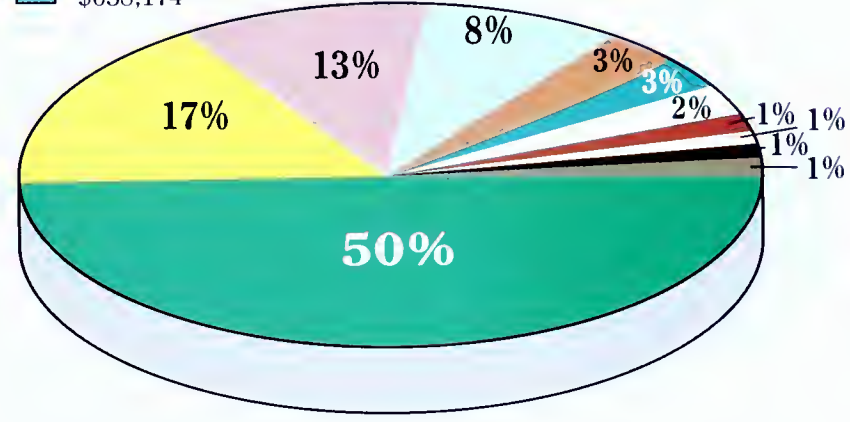
**GrandTotal
\$5,404,624**



Fish Fund Revenue Deposited July 1, 1990, to June 30, 1991

**GrandTotal
\$23,545,237**

- Resident fishing licenses (includes senior licenses) \$11,738,385
- Federal and augmenting revenue \$3,926,919
- Trout/salmon permits \$3,072,475
- Non-resident, tourist and other licenses & fees \$1,784,552
- Interest income \$794,271
- Restitution & contributions \$638,174
- Other revenue \$604,040
- Sale of PA Angler subscriptions and publications \$322,465
- Sand and gravel dredging \$313,936
- Fish law fines \$275,020
- In-lieu payments of fishways \$75,000



Pennsylvania Fish Commission Directory

EXECUTIVE OFFICE

Executive Director, Edward R. Miller, P.E.....717-657-4515
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C. Blake Weirich.....717-657-4394
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Personnel, Rafael A. Perez-Bravo.....717-657-4528
Budget, Donna J. Grey.....717-657-4532
Procurement & Warehousing, Chris E. Warehime.....717-657-4524
Fishing Licenses, Mary C. Stine.....717-657-4534
Federal Aid, Glen C. Reed.....717-657-4531
Office Services, Jay M. Osman.....717-657-4527
Automotive/Telecommunications, Brian P. Barner.....717-657-4537

BUREAU OF BOATING

Director, John F. Simmons 717-657-4538
Boating Safety and Education Division,
Virgil H. Chambers, *Chief*.....717-657-4540
Boat Registration Division, Andrew R. Mutch, *Chief*.....717-657-4551
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Thomas E. Thomas, *Chief*.....717-657-4369

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Larry L. Shaffer.....717-657-4518
Media Relations, David A. Wolf.....717-657-4518
PA Angler, Boat PA Editor, Arthur J. Michaels.....717-657-4518
PA Angler, Boat PA Circulation, Eleanor C. Mutch.....717-657-4521
Graphic Services, Ted R. Walke.....717-564-6846

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Assistant to the Director, James R. Smith.....717-657-4542

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Location.....On Lake Somerset, Somerset, PA
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Location.....On Harris Pond, Sweet Valley, PA
Southeast, Barry J. Pollock, *Manager*.....717-626-0228
Mailing address.....P.O. Box 8, Elm, PA 17521
Location.....On Speedwell Forge Lake
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Location.....Fishing Creek Road, Lamar, PA
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450 Robinson Lane, Bellefonte, PA 16823-9616
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450 Robinson Lane, Bellefonte, PA 16823-9616
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Richard A. Snyder, *Chief*.....814-359-5110
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Area 4: Robert E. Moase.....717-477-5717
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Area 5: David A. Arnold.....717-588-6388
PA Fish Commission, Bushkill, PA 18324
Area 6: Michael L. Kaufmann.....215-847-2442
Box 556, Revere, PA 18953
Area 7: Lawrence L. Jackson.....717-486-3710
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Benner Spring, William C. Kennedy, *Manager*.....814-355-4837
1225 Shiloh Road, State College, PA 16801-8495
Big Spring, Terry Farner, *Acting Manager*.....717-776-3170
844 Big Spring Road, Newville, PA 17241
Corry-Union City, Thomas L. Clark, *Manager*.....814-664-2122
13363 West Smith Street Ext., Corry, PA 16407-8915
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R.D. 1, Box 50, New Paris, PA 15544-9401
Tionesta, Charles R. Mann, *Manager*.....814-755-3524
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K. Ronald Weis, *Chief*.....814-359-5127
Division of Construction and Maintenance Services,
James I. Waite, *Chief*.....814-359-5128
Division of Property Services,
Eugene O. Banker, Jr., *Chief*.....814-359-5181

State headquarters: 3532 Walnut Street, Harrisburg, PA 17109
Mailing address: P.O. Box 1673, Harrisburg, PA 17105-1673

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Pennsylvania

ANGLER

The Keystone State's Official Fishing Magazine



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Straight Talk

A Major Step for Pennsylvania Boating



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

In the December 1988 issue "Straight Talk" column, I discussed the important need for legislative action to provide adequate funding to maintain current levels of public service, restore and expand essential programs, and permit the Commission to move into new areas of needed public service. The program that was most in need of legislative funding support was the boating program, because the only remedy available to the Commission was to increase boat registration fees by a change in Pennsylvania's Boating Law.

Recent independent surveys show that nearly three million Pennsylvanians participate in some form of boating recreation, and these boaters have told the Commission that they're willing to pay increased registration fees to maintain and improve Commission boating programs. They have asked for more boating law enforcement, enhanced boating safety education, and more and better public access and other boating-related services.

The Pennsylvania General Assembly responded to the Commission's efforts and broad-based public support. The House of Representatives passed House Bill 1107 (155-44) on July 3, 1991, and the Senate voiced its approval on November 19, 1991, by a vote of 37-13.

On December 12, 1991, Governor Robert P. Casey signed into law Act 1991-39, which increased motorboat registration fees for the first time in 28 years. This vital legislation also changed the name of the Pennsylvania Fish Commission to the Pennsylvania Fish and Boat Commission to recognize the importance of boating recreation to this agency and to the Commonwealth of Pennsylvania.

It was a herculean effort by the Commission, its staff and many supporters to get this legislation approved. Most elected officials were understandably reluctant at this time to consider any bill containing fee increases because of current constituent attitudes and economic conditions. Furthermore, of 3,773 bills introduced in 1991, only 53 were approved by the General Assembly and signed into law by Governor Casey, compared to 223 in 1990.

The Pennsylvania Fish and Boat Commission now faces the challenge of responding to the legitimate desires of Pennsylvania anglers and boaters for more and better boating safety law enforcement, improved and new boating access facilities and expanded boating safety education programs. To accomplish this clear mandate, this agency needs Budget Office approvals and additional complement to provide new and improved boating services. The Pennsylvania Fish and Boat Commission accepts this challenge and will work diligently to provide better and safer boating recreation for our residents and for our many visitors.

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The covers

This issue's front cover, photographed by Tom Fegely, shows an ice fisherman in northeast Pennsylvania preparing for hardwater action. On the back cover, photographed by Russ Gettig, an angler tries his luck on a northcentral Pennsylvania stream. If you seek hardwater action, check out the features on pages 8 and 14, and if the back-cover stream action is more to your liking in winter, turn to page 4 for surprising news about insect hatches in winter and how to raise your stream score this month. Do you prefer indoor winter activities like tying flies? Check out Chauncy Lively's "Quill Bodies Without Quills" on page 12, and if you think fishing lines are all the same, please turn to page 22 for interesting, informative reading. Pennsylvania still suffers from a drought, so the article on low stream flows on page 16 provides vital information. Lastly, the Commission is restoring to Pennsylvania waters fish that can grow to six feet and weigh over 100 pounds. For details, see page 24.

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Midge Hatches:

LATE-WINTER FLY-FISHING SECRET

by Charles R. Meck

We both diagnosed it as a severe case of cabin fever. Chuck Furimsky, of Rockwood, Pennsylvania, hadn't fly fished for several months because of the early onset of winter weather. By late December, Keystone State residents had already experienced temperatures well below zero. For more than a week temperatures stayed 20 degrees below normal. In early January a foot-deep snowstorm hit the state. By late January, Chuck had waited long enough. He wanted to get that fly rod out of storage and try his luck at some late-winter fly fishing. Like thousands of other Pennsylvania anglers, Chuck couldn't wait until the middle of April—still three months away—for the season to begin.

But where in the state would he find trout rising to a hatch in late winter? For the past few years I had witnessed some decent winter midge hatches on one or two limestone waters in the state. I had observed trout feeding on midges all winter long on Fisherman's Paradise in central Pennsylvania, but I didn't realize that several other waters in the state also harbored daily mid-winter midge hatches.

Then one day in January on my way back to my car from a grouse hunt, I crossed a river. Even in the dead of winter, trout streams mesmerize me, so I stopped for a minute and peered upstream. I took a second, then a third glance when I noted a pod of about five trout feeding on the surface, especially this late in January. I decided the next day I'd try to catch them.

By the time I arrived at the stream in the afternoon, I already saw trout rising to many dark-gray midges. I tied on a size 24 midge pupa and fished the pattern just under the surface. Trout hit the subsurface imitation freely and often until the hatch ended by mid-afternoon.

Where in Pennsylvania can you find trout rising to a hatch in winter? I had observed winter midge hatches on limestone streams, but I hadn't realized that several other waters also harbored daily mid-winter midge hatches.

For the next two months, when the weather permitted, I fished the midge hatch on that water. Not once in those two months did I see another fly fisherman taking advantage of the hatch.

I suggested to Chuck Furimsky that he bring his fly rod with him and come with me on a late January fly-fishing trip to central Pennsylvania. Chuck had his doubts about matching any hatch this early in the season, but he agreed to come. I took him to the same spot where I had been fly fishing over midges for the past several years.

For late in January we couldn't have expected any better weather. By noon under a clear late-January sky, the air temperature rose to 50 degrees. Chuck and I sat there waiting for something to happen on the surface. Shortly after noon I began to see a few dark-gray midges emerging slowly from the tail of the pool in front of us. Soon the few turned into hundreds and a group of five or six trout took up feeding positions upriver less than 50 feet from us. I gave Chuck a Dark-Gray Midge, which he tied onto his 6X tippet. Chuck waded slowly into the 43-degree water to reach the midging trout.

Casting accurately

When you fish for trout rising to adult midges, you have to cast accurately. Trout aren't going to move far to pick up a size 24 pattern. After a half-dozen trips to fish this hatch, I began to focus on one feeding trout. If I hooked or missed the fish, or if it refused the pattern, I moved on to another feeder.

You have to look carefully for rising trout. Some of the rises even by fairly large trout are almost imperceptible.

Chuck now moved directly downriver from the feeding pod and began casting to the trout nearest him. On the fourth or fifth cast, he covered the slight rise. The trout slowly surfaced and took Chuck's size 24 midge. Chuck released the small brown trout quickly so he could fish to the next one.

In no time at all Chuck picked off the second fish. By later in the afternoon the temperature fell to the low 40s and midging activity slowed appreciably. But before the midge hatch had ended for the afternoon, Chuck had picked up a few more small trout.

Chuck returned to the car, now confident that he just witnessed trout rising to a late-winter midge hatch, that he matched the hatch perfectly, and that he caught trout. Not bad for someone who didn't realize that Pennsylvania trout can rise to hatches all year long.



But that's only part of the story of fishing midge hatches. Much of the activity occurs underwater away from the angler's view. Trout eagerly take the emerging midge pupa, but unless you're a skilled nymph fisherman you might have difficulty detecting the subtle strike at the pattern. Furthermore, you might even have difficulty following the size 24 floating pattern that copies the adult on the surface.

Using two patterns

To enhance your chances of success, try tying two patterns on your leader and cast the two at the same time. If you're fishing a midge dry fly, first tie on a larger dry fly pattern on your tippet. Try tying a larger attractor pattern that shows up well on the surface. Tie this larger pattern nearer your reel. Then take a 30-inch piece of tippet material and tie it onto the dry fly at the bend of the hook—yes, the bend of the hook. Secure the extra piece of tippet material to the bend of the larger dry fly with an improved clinch knot. Tie onto this extension another dry fly, nymph or even a midge pupa.

By using the larger dry fly with a smaller midge pattern you'll be more able to locate your pattern and follow it. By using a larger dry fly with a sinking midge pupa pattern you'll be better able to detect those subtle underwater strikes. If the larger dry fly hesitates or sinks, set the hook.

You'll find that casting these two patterns tied in tandem is easy, and they won't tangle or twist. If you use one dry fly and one wet fly, you'll have a much better chance of success.

Using this larger dry fly rather than a strike indicator gives you a second fly to catch trout. I often catch one out of three or four trout on the larger dry fly.

December through March

From December through March, many of our streams and rivers hold midge or chironomid hatches almost daily. These tiny flies appear often from late morning through mid-afternoon.

Alan Bright of Spruce Creek and Bert Lavan of Bellefonte have fished over hatches of black and gray midges in March. Alan calls it spectacular early fly fishing when he meets a midge hatch from January to March. He agrees that few anglers in the Commonwealth take advantage of this forerunner of the great spring hatches.

Midge hatches appear on trout waters like the Youghiogheny River in southwestern Pennsylvania, and on Spring Creek and the Little Juniata River in the central part of the state. Trout won't rise to these small morsels on all sections, but position yourself on a slower section of the water where trout don't have to expend too much energy to capture the food, and you'll probably see surface-feeding trout throughout much of the winter.

Most of the midges appearing from January to March are dark gray and range in size from 3 to 4 mm (copied with a size 24 hook).

You can also find other hatches on many Commonwealth streams and rivers occurring from late February through March. These two types of insects can also create great preseason excitement.

Early black stonefly

The early black stonefly appears on many Commonwealth waters, including Ridley Creek in the southeast, Oil Creek in the northwest, Laurel Hill Creek in the southwest, the Yellow Breeches in the southcentral, Penns Creek in the central, and the Little Lehigh and Tulpehocken in the southeast.

You can find these small down-winged insects appearing on warm sunny days especially from late February through much of March. These early stoneflies, copies with a size 16 or 18 black-bodied down-wing, emerge around midday and can appear in large numbers.

If you find this stonefly, be prepared for an unbelievable early season bonus of matching a hatch.

Steven MacDonald of Titusville fishes the early black stonefly annually. He uses a size 16 Black Caddis to copy the adult. Steve often skitters the pattern across the surface to copy the actions of the natural adult. It's not unusual for Steve to catch 20 to 30 fish when he meets this hatch in March in northwestern Pennsylvania.

Little blue-winged olive dun

A third fly is a mayfly anglers call the little blue-winged olive dun. It often begins appearing on warm March afternoons. Anglers often match the dun with a size 18 or 20 Blue Dun pattern. If you tie your own flies, tie the pattern with a dark olive-gray body to match the body of the emerging dun.

Big Fishing Creek, the Little Juniata River, Spruce Creek, Penns Creek and Spring Creek in the central region; the Yellow Breeches Creek and Falling Spring in the southcentral part; and the Tulpehocken and the Little Lehigh in the south-east are just a few Commonwealth waters where you can find this hatch. It often appears first in late winter or early spring. The hatch also appears in the early afternoon hours.

You can match the little black stonefly with a size 16 or 18 pattern tied with a black body and down-wings. Tie a short black tail, a black body palmered with black hackle and a down-wing made from a mallard quill section. Grease the pattern thoroughly and lift it across the surface.

You can match many of the adult midges with a dark-gray body tied with poly or made from a stripped peacock herl and gray legs tied on a size 20 to 24 hook. Add a short piece of Z-lon on the tail to imitate the adult escaping from its shuck.

Art Gusbar, a skilled fly fisherman from Somerset, has fished midge hatches for many years. Art uses a Griffiths Gnat to copy the midge adult. When Art sees trout sipping on the surface in January, February and March, he immediately switches to the gnat pattern. Art thinks the gnat works as well as any pattern. The Griffiths Gnat has a body made from a peacock herl and a grizzly hackle wound in front. This western pattern works exceptionally well on eastern waters when chironomids appear.

Don't overlook using wet flies to fish the midge, little black stonefly, or little blue-winged olive dun hatches. Use a size 16 black nymph to copy the stonefly.



Don't overlook using wet flies to fish the midge, little black stonefly or little blue-winged olive dun hatches. Above right is a little blue-winged olive dun.



Charles R. Meck

Nymph patterns

Don Foltz of Lincolnville in northwestern Pennsylvania is one of the top nymph fishermen in the state. He created a remarkably effective pattern he calls the Nutria Nymph. Don ties the pattern completely from nutria fur. He includes the longer guard hairs to make the nymph look even bugger. Don finds this pattern effective when copying the larva of the little black stonefly. He uses the pattern before and during the hatch of stoneflies.

Tie sinking emerging midge pupa patterns on sizes 20 to 24 hooks. Wind black or dark-gray floss on the shank, rib with fine copper wire, add a thorax of gray muskrat fur, and put a small piece of white poly yarn just behind the eye of the hook.

Tie a Baetis Nymph on a size 18 hook to copy the emerging little blue-winged olive. Many anglers use a Pheasant Tail Nymph or Hare's Ear to copy the larva. If you're tying a pattern to copy the nymph, use gray hackle fibers for the tail and legs, dark olive angora for the body, and tie it on a size 18 hook.

All three wet flies can be fished just under the surface when the hatch begins. Fish the Pheasant Tail especially just under the surface as an emerger pattern when the duns appear in the riffles and you can experience a great late-winter afternoon of fly fishing.

What a terrific way to end the winter blues—with a pre-season bonus hatch on the surface! You, too, can fish over trout rising to hatches early in the year even before the season begins on many state waters. Look for one of these three hatches on your favorite stream that allows early season fly-fishing or has no closed season. All the streams and rivers listed above contain sections that remain open in late winter.

Can't wait until the trout season officially opens on April 18? Then select one of the streams and rivers open to fishing in March and one that contains a good hatch of midges, little black stoneflies or little blue-winged olive duns. You might find an easy solution to the winter doldrums. You might find trout rising to a preseason hatch long before you ever thought you'd experience any hatch of a kind.



Charles R. Meck has written *Meeting and Fishing the Hatches* and *Pennsylvania Trout Streams and Their Hatches*. His third book, *Fishing Small Streams with a Fly Rod*, was published last August.



Tom Fegely

A pattern (right) that copies the black caddis can be used to imitate the adult of the little black stonefly.

Charles R. Mock

Five Southwest Pennsylvania Ice Fishing Gems

by
John E. Mahn, Jr.

A week or so of temperatures below freezing usually brings out two types of anglers—those who wait all winter for the chance to walk on water and those who stand over a hole in the ice as a last resort. Here in southwestern Pennsylvania, ice fishing is a fickle proposition. Some winters there is no safe ice. Even when perfect ice fishing conditions exist, the season seldom lasts longer than six weeks. A good freeze brings everybody out, and the anxious anglers are flanked by those unwilling to pass up a good thing.

Despite a short season, ice fishing in this part of the state is a good thing. A variety of smaller waters is one reason. Not only do the smaller lakes freeze faster, but they offer more varied fishing opportunities. In southwest Pennsylvania, a half-dozen smaller lakes support anglers while skim ice is just forming on the larger impoundments. If the fish are not biting on one lake, they are bound to be hitting elsewhere. Anglers even have a choice of species because some lakes are managed for warmwater species, and others favor coldwater species.

Even though anglers regularly catch species like trout, bass, walleye and northern pike through the ice, panfish account for the vast majority of the angler's catch. Usually, locating schools of these species is more difficult than catching them once they are found. As they do during the open water season, panfish make regular movements throughout the winter. Understanding these seasonal shifts makes finding them much easier.

Big bluegills bite best early and late in the winter. This tendency is what usually tempts anglers onto unsafe ice. Prudent anglers resist this temptation. Although bluegills bite throughout the day, fishing

peaks in the morning and the evening. They typically do not bite after dark. Bluegills also tend to group by size. If you land one or two small ones, move the bait closer to the bottom before changing your spot. Larger 'gills often hold beneath smaller ones. Early in the season look for weed growth in shallow water, depths of 10 feet or less.

Now, however, bluegills move deeper, but they still stay close to cover.

Crappies can be found in water up to 30 feet deep during the winter. They may hold tightly to cover or suspend in open water. Again, early and late in the season is the best time for crappies. Unlike bluegills, crappies don't bite after dark. Cloudy or dark days are also good for catching them. Fish for winter crappies as you would for springtime crappies. Early in the season check out the shallows first, but as the season progresses, move to deeper water.

Fishing for perch improves as winter continues, peaking near ice-out. Early in the season, check out the backs of coves and shoreline points. Look for water less than 10 feet deep. Later in the season, perch move into water as deep as 20 feet. Fish near drop-offs. Use a spread of tip-ups covering a wide area to help you locate fish.

Depending on one's commitment to the sport, ice fishing equipment goes from the basic "shiver box" to elaborate portable shanties featuring heat, lights and even cooking facilities. One does not necessarily need portable depthfinders or an insulated shanty to catch fish through the ice, but some of the basics include:

- **Spud bar or ice auger.**

Even though ice anglers are a sociable lot, an ice auger allows you

to fish where you want to fish. Sometimes getting away from the crowd is the only way to catch fish. Fishing without a bar means you must use previously drilled holes, so you may be fishing dead water.

- **Jigging rods.** These rods are usually reserved for light-biting panfish. Most are equipped with spring bobbers that help anglers detect subtle strikes. If rods are to



Ice fishing in southwest PA is productive. A half-dozen smaller lakes support anglers while skim ice is just forming on larger waterways.



Southwest Pennsylvania



be used for larger fish such as bass and walleye, a closed-face reel should be used to hold the line rather than the usual pegs. A reel allows the angler to feed line easily to the fish when needed.

- **Tip-ups.** They are usually reserved for larger, more aggressive species, but tip-ups can also help pinpoint fish locations. By placing a few tip-ups away from the immediate area, an angler can cover more water.

- **Styrofoam bucket.** Keeping minnows alive is usually not a problem in the winter, but a styrofoam bucket keeps the water from freezing much longer than the traditional metal or plastic buckets. Put the styrofoam bucket inside a five-gallon plastic pail and it will last through years of winter fishing.

Other necessary basics include an ice scoop, to keep the hole clear of ice, a towel to keep hands dry and a piece of carpeting to keep your feet off the ice. A clip-on weight helps estimate depths and set bobbers at the correct position. Most of this gear can be carried in a five-gallon bucket

that doubles as a seat.

Anglers in this part of the state use a wide variety of baits and lures when fishing through the ice. Dead baits, like salted minnows, have their loyal fans, and other anglers prefer preserved baits. Most anglers prefer live offerings, such as maggots, mealworms and grubs. For bass, walleye, pike and crappies, live minnows are always a good choice. Remember to match the size of the bait to the species you are after.

As a general rule, artificials are usually tipped with some type of live bait to make them more attractive. Ice jigs and 1/64-ounce leadheads can be tipped with a maggot or mealworm to make them more appealing to panfish. Jigging lures, like the Swedish pimple, sometimes work better if they are tipped with a small minnow. In some cases, however, tipping a lure can affect its action.

Here is a look at some of the better ice fishing waters in southwest Pennsylvania. Keep in mind that the recent drought may have left water levels way below normal.

Many areas that normally produce fish might be in shallow water, and in some cases, out of water.

High Point Lake

High Point is located north of Route 40, off Route 523 in Somerset County. The 342-acre lake is not far from Mount Davis, the highest point in Pennsylvania. The eastern end of the lake is shallow and stump-filled, and the breast of the dam is located at the extreme western end. Noted for its population of northerns, High Point Lake also contains ample numbers of perch, as well as walleye, crappies and bluegills. Possibly because of its elevation, the ice comes early to High Point and stays late, making it a good choice for serious ice anglers.

Built in the 1950s, High Point Lake flooded areas of laurel and pine. The swampy terrain is still evident in the upper end of the lake. Ice anglers should beware of honey-combed ice close to shore caused by underground springs. Look for white-colored

mounds that signal unsafe ice.

Fishing is productive straight out from the launch ramp on the south shore. The creek channel runs closer to the launch area on the opposite shore to a depth of about 16 feet. The maximum depth of the lake is about 30 feet. High Point is a fine perch lake. Walleye and northerns are also plentiful, but sub-legal ones seem to outnumber legal fish. Crappies and bluegills run to about 10 inches. Every so often, High Point also gives up a very big musky. According to Bud Flyte, WCO for Somerset County, another good spot is the middle of the lake, in line with the barn located on the north shore.

Small minnows usually work well, as do ice jigs of 1/64-ounce tipped with grubs. For artificials, try the jigging Rapalas or the Swedish pimple. A few tip-ups are a good idea, but be sure to keep at least one jigging rod with a closed-face reel in your hand at all times. Wayne Henry, a veteran High Point angler, says, "A moving rod is the best rod. Your bait must have some action to catch fish." When using a jigging bait, Henry keeps a tight line on the drop to detect light strikes. A spring bobber also helps signal bites. Even though High Point is not a trophy lake, it does provide lots of action. Bring an ample supply of bait.

One word of warning—High Point is known for high winds during both winter and summer. The wind usually blows from east to west down the entire length of the lake. Ice anglers in particular should be prepared to cope with the high wind and its chilling effect.

Yellow Creek Lake

Yellow Creek Lake is located in Yellow Creek State Park. A short distance from Indiana, the lake is south of Route 422 and west of Route 259. Some 760 acres in size, Yellow Creek is exclusively a warmwater fishery. It is part of the Fish Commission's Big Bass Program. The minimum size for bass is 15 inches, with a creel limit of four bass per day. In addition to bass, the lake contains northerns, walleye, perch, crappies, muskies and bluegills.

Most ice fishing takes place at the end of the lake closest to Route 259. Few anglers fish near the dam. The area between Route 259 and the north side of the lake is usually productive. Another good spot is the area between the park office and the beach. A submerged bridge by the northern launch area gives up some slab-sized crappies, but not in great numbers. The creek channel in this part of the lake also runs close to shore, so try several spots where

the bottom drops off into deeper water.

Yellow Creek Lake had a reputation for producing sub-legal pike, but that may be changing. Jeff Knapp, outdoor writer and *Pennsylvania Angler* contributor from Indiana, PA, reports seeing more pike in the 28- to 30-inch range this past season. Two or three tip-ups baited with a lively minnow should tempt some of these bigger pike.

Because there is also the chance of landing a large bass at Yellow Creek, skip the wire leader normally used when fishing for big pike. Try a foot or so of 20-pound mono instead. It is strong enough to hold a pike, but it won't spook a big bass.

The park office is an additional source of information on what is producing or current fishing conditions. The phone number is (412) 463-3850.

Virgin Run Lake

At 35 acres, tiny Virgin Run Lake gets some of the earliest action of the ice fishing season. Located in northern Fayette County, Virgin Run sits off Route 201 between Flatwoods and Vanderbilt.

This small lake attracts lots of attention all year long because it contains both trout and warmwater species. Winter trout stockings boost an already ample number of holdovers from the spring. Bass tend to be on the small side, but they are plentiful enough to keep spirits up. As with most lakes, bluegills provide the bulk of the action. A drawdown last winter reduced the lake to half its normal size to kill some of the choking weed growth. By eliminating some of this cover, finding an offering dangled below the ice should be easier.

The dam at Virgin Run is to the immediate left of the launch ramp. Directly across from the ramp is a point of land. To the right of the ramp, at the upper end of the lake, is an incoming stream. Most of the panfishing is done in the middle of the lake. Halfway between the ramp and the point of land is the deepest portion of the lake, 16 to 18 feet. Lots of crappies and bluegills are taken here. To catch trout, walk to within 15 feet of the point, turn right and walk toward the incoming stream for 100 yards or so. Ice jigs tipped with maggots are always productive in this area. Bait two or three tip-ups with small minnows for either trout or bass.

Keystone Dam

At the eastern end of Armstrong County, Keystone Dam covers some 1,000 acres. From the east or west, take Route 422 to Route 210, which parallels the lake its entire length. Keystone is another lake that contains

trout and warmwater species. Because of its size, anglers should check ice thickness before fishing. Don't assume the ice is safe because you see other anglers out fishing.

Fish Keystone Dam's coves for panfish and deeper water for trout. Reefer's Cove, Laird's Bay and the Old Farm Pond are all productive spots for panfish. Reefer's Cove is the longest bay on the Nu Mine side of the lake. The Old Farm Pond is just what the name implies. It is located between Reefer's Cove and the Nu Mine access area. One drawback to the Farm Pond is that it cannot be reached by car.

At the upper end of the lake, near Sagamore, anglers find big perch. Look for the "tubes," corrugated steel culverts carrying water into the lake. If brushpiles in this upper third of the lake are still underwater, they should hold crappies and smallmouth bass. Crappies usually run nine to 10 inches with an occasional larger slab. For walleye, try the mouths of coves in the evening. Minnows get the nod for walleye, bass and pike. Use smaller minnows or jigs tipped with maggots for crappies and perch. The areas off the launch ramps also get much attention from ice anglers, as does the large sunken island on the south shore opposite the Farm Pond. Keystone Bait and Tackle, at (412) 354-3694, supplies anglers with up-to-date information throughout the winter.

Hemlock Lake

Hemlock Lake, in Indiana County, is another waterway that invites early ice fishing action. At 207 acres, Hemlock Lake freezes before larger impoundments. Finding the lake is an angler's biggest problem. For some reason, the lake is not shown on many maps. Hemlock Lake is located east of Route 119, off Route 336 between the towns of Johnsonburg and Smithville.

Hemlock has two launch areas, located on opposite shores. The best fishing is in the middle of the lake between the two launch areas. The northern end of the lake, away from the dam, is usually more productive than the southern end. It contains stump fields that attract panfish. Hemlock has lots of largemouths, some northerns and perch.

Minnows are the most common bait, but anglers also do well jigging Kastmasters. In the stumps try a jigging rod and ice fly tipped with a maggot or grub. Use a clip-on sinker to find the bottom, adjusting the bobber to keep the bait six inches from the bottom. Keep moving the bait up until you contact fish.



Quill Bodies Without Quills



by **Chauncy K. Lively**
photos by the author

The term "quill" is one of the great ambiguities in the vocabulary of the fly tyer. The body of the Quill Gordon is dressed with a single stripped fiber from the circular "eye" of a peacock tail feather. When the fiber is denuded of its hairy flue, it is flattish and tapered, and it has a dark edge along one side. Now it is known as a "quill fiber," and when it is wound in abutting turns on a hook, the effect is similar to the segmented bodies of many insects. Thus, it is a "quill body."

Wing feathers of ducks, geese and other birds are often referred to as "quills," and quill sections are prescribed for wings in the dressings of certain wet and dry flies. A single fiber from a quill feather of a large bird is also called a "quill fiber," and it is sometimes dressed as a body in the same fashion as a peacock quill.

Then there are the hollow, tapered stalks of the wing feathers, from which the quill fibers emanate at right angles. These, too, are often called "quills." With a sharp point carved in the base end of the stalk, they became the quill pens with which our forefathers wrote.

There are other quills, too, like the stripped hackle rib body of Art Flick's Red Quill pattern. However, it appears that most references to "quills" relate to the segmented type of quill bodies.

Peacock quill bodies look very realistic when properly dressed, but they have a few drawbacks. First, they are fragile in flies for trout or other toothy gamefish. A small measure of durability may be gained by wrapping the quill fiber over an adhesive-coated underbody or by counter-ribbing the quill body with fine gold wire. However, these steps yield only a slight benefit while adding weight to the fly, and the net advantage is questionable, particularly in dry flies. In addition, the usable part of the quill is short, limiting its use to flies of medium or small size.

A few years ago, when I was experimenting with strips of polyethylene film for nymph bodies, it occurred to me that this material might possibly be used similarly for quill-type bodies capable of withstanding hard use. Several months passed before I got around to trying it, but the adaptation proved unexpectedly simple.



1 Clamp the hook in the vise and tie the thread in about one-third the shank length behind the eye. Cut a small bunch of deer hair and even the tips. Bind the hair to the top of the shank with the tips extending over the eye. The effective length of the hair from the tie-in to tips should equal the shank length. Trim the excess and wind the thread to the bend. Tie in four microfibers for tails. Separate them into two pairs and make criss-cross winds between them to separate them. Wind the thread forward to the hair butts.



2 Separate the hair into three equal parts with criss-cross winds so that a bunch extends out each side and a third extends forward. Loop the thread around the base of the middle bunch and pull the bunch upright. Apply a bead of Flexament to the base of the wings, allowing it to run into the base of the legs.



3 Tie in a strand of floss behind the wing, hold it along the shank and wrap over it to the bend. Cut a taper in one end of a quill strip and tie in the tapered tip at the bend with the strip at a right angle to the shank and the dark edge toward the tails. Wind the thread to the rear of the wing.

Polyethylene film is a sheet-plastic sold in rolls at your local K-Mart as inexpensive tarp material or protective covering for outdoor furniture. A single roll of this material would undoubtedly provide a lifetime supply for a platoon of fly tyers. However, it is generally useful stuff to have around the house and its use in fly tying ordinarily becomes secondary. Food storage bags are made of polyethylene film, too, but they are made with a thinner gauge than what I prefer for this use.

I found it convenient to cut the film into small working sheets of about two inches by six inches. Before the film will accept tinting with a marking pen, you have to remove the sheen. To accomplish this I sand the film gently with fine-grit sandpaper, using a circular motion. When the sheet is uniformly cloudy-white, I turn it over and sand the other side. Then I apply the appropriate ground color with a permanent marking pen. The ground color can vary according to the pattern. For this Ginger Quill body, tan is required. However, for other patterns brown, gray or olive may be appropriate.

Once the tinting has dried completely, you're ready to prepare the quill strips. Position the tinted working sheet on your

work table with the long dimension extending away from you. With a fine-pointed black ballpoint pen and straight edge, draw a fine line along the right-hand edge of the sheet. Then replace the pen with a razor blade, move the straight-edge to the left about 1/16-inch (still parallel with the edge) and cut along the straight edge the length of the sheet. You should now have a 1/16-inch by six-inch quill strip with one dark edge. By continuing this routine you will have 32 quill bodies from a single two-inch by six-inch sheet.

To achieve a tapered body with the thickness of a mayfly's body, first you need to build an underbody of white or cream floss. Before applying the finished quill, I like to coat the entire floss underbody with Flexament. The adhesion it provides prevents the turns of the slippery film from shifting in use. In winding the quill strip, make sure that the dark edge is the trailing edge (the edge toward the bend) of the strip. If it is reversed, that is, if the dark edge faces the eye, it will be covered as each turn is overlapped and the quill effect will be lost. In real mayflies the abdominal segments are fairly narrow near the tails and they gradually widen toward the wings, a feature that may easily be

incorporated in the artificial.

The Ginger Quill, known to entomologists as *Stenonema fuscum* and to a few anglers as the Gray Fox, is a mayfly common to many Pennsylvania trout streams. It resembles the March Brown but is both slightly paler and a little smaller. Except for its body, the Tri-Point Ginger Quill follows the same general tying procedures as the tri-point duns we described in past *Angler* issues. It is a rugged dry fly requiring little maintenance other than drying after each encounter.

ANGLER

Dressing: Tri-Point Ginger Quill

Hook: Size 14, 2X long (Mustad 94831 or Tiemco 5212).

Thread: 6/0 tan prewaxed.

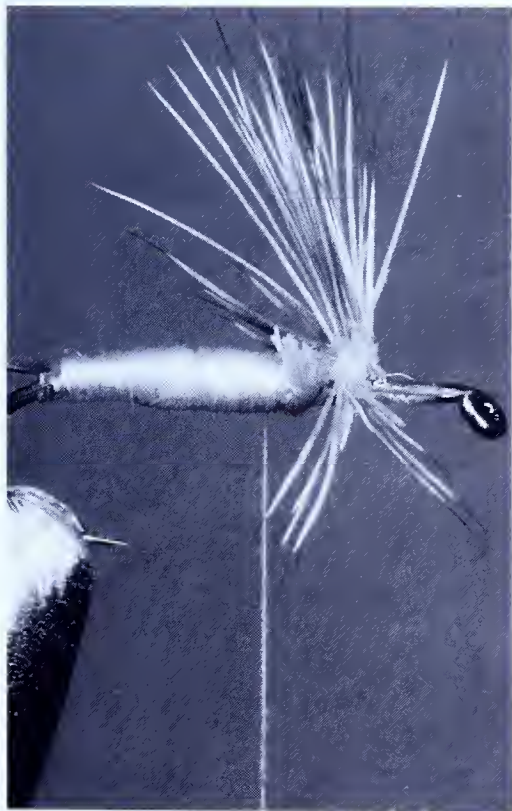
Tails: Four brown microfibets, paired.

Wing/legs: Fawn-colored deer hair.

Underbody: White or cream floss.

Body: Prepared polyethylene quill strip (tan).

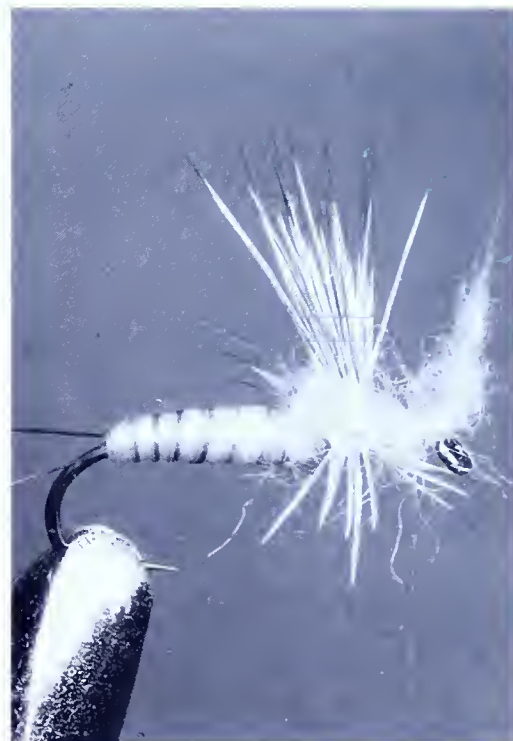
Thorax: Dubbing of tan fur or synthetic.



4 Wind the floss to build a tapered underbody. Trim the excess.



5 Coat the underbody with Flexament and immediately wind the quill strip forward in overlapping turns to the wing. Trim the excess. With fine-pointed pliers squeeze the hair at the base of the wing and the legs.



6 Apply wax to the thread next to the shank and make a twist dubbing. Bring the working thread forward of the wing. Wind one turn of dubbing behind the wing, make criss-cross turns around the base of the wing and legs, and tie it off behind the eye. Whip-finish the head and apply head lacquer.

Recipe for *Icetime Bass*

by Tom Fegely

February is full of doldrums for avid bass anglers, except for those who hook up their trailers and haul their boats to southern waters. But some stay-at-home Pennsylvania anglers specialize in taking bass—big bass—through the ice.

In the 20 years since a friend introduced me to the joys of ice fishing, I've caught my share of perch, pickerel and crappies plus an occasional trout. But it wasn't until Jeff and Cathy Heller hosted me on a "bass only" trip about eight winters ago that I learned the techniques necessary for luring largemouth bass from beneath hard water.

The recipe is a relatively simple mixture of proper bait, the right gear and locating structure—not very different from warm-weather techniques, but ice angling's inherent limitations require some adaptations.

Here's a mix of ingredients with which the Hellers measure their hardwater success.

1 Big baits catch big bass. "We always use big shiners when we want to catch big bass," says Jeff. "The problem is that many tackle shops don't stock big shiners in winter."

The Hellers, who operate a bait and tackle store near Allentown, buy their shiners and other finned baits from Arkansas dealers who typically supply smaller fare than the six- to eight-inch shiners they prefer.

The same holds true for many Keystone State bait shops.

If they're not available for purchase, Jeff suggests putting in a supply of the silver-scaled baits by doing some pre-freeze netting in lakes that have shiner populations.

If big minnows can't be located, Heller suggests purchasing the largest shiners available. Baits in the four- to five-inch size can also be productive.

2 Terminal tackle. Present the large baits on 1/0 or 2/0 hooks. Snare them just under the dorsal fin so that they can swim naturally. Don't hook the shiners too deeply or they will not last long.

The Hellers fashion 17-pound-test snelled leaders tied to 10-pound monofilament line. Often a largemouth will tangle in submerged wood or vegetation and the heavy leader will prevent its breaking off. The tough end-line also helps when a sharp-toothed pickerel grabs the bait, which occurs frequently on the Pocono Mountain lakes that the Hellers frequent.

3 Tips-ups. A variety of modern tip-ups has replaced the standard slat-wood, tension-release models, although there's nothing wrong with using these older version flag-wavers. The Hellers opt for the newer plastic, magnetic-release models that are less prone to disturbance by wind and easier to set and check.

4 Hole placement. Successful largemouth bass anglers know it's necessary to drill plenty of holes to find bass. Depending on the lake, smallmouth bass may also be caught with the same techniques.

"You first have to find the channel," Cathy explained last year when my wife and I joined them on a February ice outing. "That's the key—and it means drilling lots of holes."

Where does an angler begin?

Cathy explains: "When we fish a lake we haven't fished before we take a portable depthfinder along. A lake map comes in handy, too. That saves lots of time. But if we've fished the lake

before (summer or winter) and know about where the channel runs, we only have to drill some holes and view the bottom to find the deepest spots."

The Hellers are convinced that bass seek deep water during ice time and for that reason they prefer shallow-water lakes, such as Lake Ontelaunee in Berks County and Shohola Lake, Pecks Pond and others in the Poconos. In such waters, concentrations of bass are easier to pinpoint.

By using the depthfinder, referring to a lake map and/or recalling channels and depressions based on previous visits, they first drill test holes. Initial drillings are made about 10 to 20 yards apart in perpendicular strings, until the channel's course can be determined.

Of course, hand-drilling can be tiring and the Hellers carry a motorized auger for the task.

5 Determining the proper depth. If a depthfinder isn't used, Jeff and Cathy sound the bottom using a jiggging rod tipped with a heavy sinker and bobber. They drop the sinker through the ice hole and adjust the bobber until it floats with no slack in the line.

Of course, "deep" is a relative term, depending on the nature of the lake. It may be only four or five feet in some waters and 10 feet or more in others. They set tip-ups where depth variations change abruptly, and they suspend the bait a foot or two off the lake floor.

6 Alternative set-ups. If the Hellers can't locate a channel or a deep lake, they move to coves and to the sites where backwater creeks drain into the lake. These places often hold bass.

Big bass also congregate on deep-water dropoffs, but these spots are often difficult to locate.

7 Maximizing success. Jeff and Cathy always use the maximum number of tip-up holes allowed by state law—five per angler. However, icetime bass-catching isn't a hurry-up affair, and several holes are typically used to jig for perch, crappies, bluegills and other panfish the lake may hold. That helps to pass the time on days when the action may be slow.

The Hellers have noted that coldwater "hotspots" can often be isolated in a day's drilling and fishing. Of 20 tip-ups set on an outing last winter, only seven or eight of them produced most of the fish. At such times, the Hellers sometimes drill additional holes in the vicinity of the productive tip-ups, 10 to 20 yards apart and in the same channel.

8 Setting the hook. One of the critical techniques of successful winter fishing, no matter what the species, is setting the hook at the proper time.

Typically, when a fish triggers a tip-up, the fish is allowed to swim with the bait for 15 to 20 seconds before the hook is abruptly set. But Jeff cautions that allowing the fish to run too far often results in the line becoming tangled in stumps or submerged deadfalls.

Sometimes, however, a lethargic largemouth bass takes a bait and "sits tight." On a recent trip I had a four-pounder take a shiner and not move far enough to trip the tip-up. I discovered it when I checked the bait.

For this reason, check your bait frequently, both to replace dead or injured shiners and to keep tabs on inactive tip-ups.

"It's not unusual to check a tip-up and see a bass a few feet



B. L. Fegeley

below the hole with the shiner either in its mouth or completely swallowed," Jeff explains. "I doubt that big bass have much competition, especially in winter, and they don't have to waste energy by running off with it."

9 Miscellaneous gear. Of course, ice anglers head onto the hard water with clothing and footwear designed for the day and the occasion, but they need other necessities.

An extra pair of dry gloves is one. Painful cuts can be prevented by carrying an extra pair of heavy gloves to use when setting the hook. As the line is held in the hand—and the hands and fingers are usually cold—such slices, while not serious, can be painful.

Remember to set the hook on a bass more vigorously than you'd hook a perch or crappie on a jigging stick.

You also need needle-nose pliers or a hook-remover because bass often swallow the bait. The Hellers typically release their



Tom Fegeley

The recipe for icetime bass is a simple mixture of proper bait, the right gear and locating structure—just like warm-weather fishing but with some adaptations.

catches, so it's sometimes necessary to snip the line and allow the fish's stomach acids and water to disintegrate the hook.

Because winter bass typically put up short-term fights, as compared to their prolonged summer battles, and because they are kept out of water only long enough to pose for a picture, the Hellers believe survival rates are high. However, if bleeding is evident, indicating gill damage, the fish should be kept for fillets.

10 The "magic" day. Even though most of the Hellers' winter bass trips are successful, none may ever match January 2, 1981, when they caught 15 largemouths at Lake Ontelaunee, near Reading. The six biggest weighed 26-pounds, 13-ounces—including Cathy's 8 1/2-pound trophy.

Before the ice melts, try using the Hellers' tactics on winter bass. It could yield a "magic day" for you, too.



The Dangers of Low Stream Flows: An Interview



Leroy Young

Thorn Creek at 25.37 cfs in February 1989.



Leroy Young

Thorn Creek at 5.76 cfs in March 1989.

with **Leroy Young**

by Ann Kreisler

Remember last summer? In central Pennsylvania temperatures were above 100 degrees with a drought and water rationing. If you fished in the Susquehanna River in July, you realized that it was running at a record low, barely 3.0 feet measured at Harrisburg. Now developers plan to build a neighboring townhouse community. What does all of this mean? It means that you should be concerned about the amount of water flowing in your local river, stream, creek or spring. With the combination of drought and development, stream flows are drastically falling. And to top it off, there is currently very little regulation of stream flow requirements.

So as Pennsylvania progresses industrially, we are changing the faces of our streams. Coldwater streams are becoming warmwater streams as stream flows decline. Fish habitats are also changing. We all know that fish need water, but the question is, how much?



Russ Gettig

Fish Commission fisheries biologist Leroy Young is the key Commission figure studying this instream flow problem. Young recommends habitat-protective stream flow rates for DER's use in determining approval of water withdrawal permits. I recently spoke with Young about Pennsylvania's instream flow problem.

Ann Kreisler: What are your concerns related to low stream flows?

Leroy Young: Stream flows fluctuate in natural conditions. When low flows occur there is less cover, so organisms are more vulnerable to predators. Temperature changes can occur as flows drop and streams become shallower. Obviously the sun warms a small amount of water more quickly than it warms a large amount

PA Fish Commission



Leroy Young



Thorn Creek at 3.99 cfs in April 1989.

Thorn Creek (Butler County) 0.0 cfs flow in October 1989.

of water. Fish and aquatic life are adapted to survive in variable natural conditions. Still, either loss of flow or flood conditions can have devastating effects. When we withdraw water, creating a low-flowing stream, we increase the occurrence of these extremes.

AK: What are Pennsylvania's instream flow problems? What are the causes of low flow?

LY: In streams, fluctuating flows are natural. Problems occur with unnatural flows that relate to man's activities. For example, a hydroplant that diverts water around a section of stream below a dam causes a loss of stream flow in that section. Withdrawing water for hydropower production, industrial uses, municipal water supplies, agricultural and golf course irrigation and snow-making are some of the principle causes of low-flowing streams.

AK: What are the effects?

LY: Reducing aquatic habitat. We classify this habitat according to its microhabitat and macrohabitat components.

There are four main microhabitat components: depth, velocity, amount of substrate (primarily the size and composition of



Adequate flow is essential to keeping waters clean.

rocks on the stream bottom), and cover (such as submerged logs, aquatic vegetation and undercut banks). The macrohabitat components include water quality variables such as temperature and dissolved oxygen. In a low-flowing stream, these components are affected.

For example, during low-flow events there is less turbulence, which is an important mechanism whereby atmospheric air is mixed with water. As a result, there can be less dissolved oxygen, which is a vital requirement of aquatic organisms.

Also when there is a municipal, industrial or agricultural wastewater discharge into the stream, there is less clean water to dilute the wastes during low flows. Over the long term, chronically depressed aquatic and invertebrate communities result. It's taking water away from fish, which is their basic support need. It would be like taking oxygen away from humans.

AK: What are the various research methods designed to define minimum flow rates?

LY: The Instream Flow Incremental Methodology (IFIM) is the state-of-the-art instream flow research method. This methodology is designed to study how the various stream habitat components change with differing flows and the effects of these changes on habitat suitability for aquatic life. It's emphasis is on habitat protection.

Researchers carefully select several representative fish species and then study the relationships of incremental changes in flow to such things as depth, velocity, substrate, cover and water quality.



Power plants are industrial water users. This facility is TMI on the Susquehanna River.

Then they relate their parameters to their suitability for the various life stages of each species.

The wetted perimeter method is a less intensive technique. Researchers select transects (imaginary lines) across the stream at riffle areas, which act as small dams or natural aerators that are productive areas for aquatic invertebrates, which serve as food for fish. A cross section of the riffle area is mapped by surveying the elevation of the stream bottom as well as the elevation of the water surface at a given flow. Then the relationship between the flow and a select parameter, the wetted perimeter, is determined.

The wetted perimeter is the distance along the bottom of a stream channel that is in contact with water. This measurement changes with changing flow. Researchers plot the flow against the wetted perimeter on a graph. The rate of minimum flow required for habitat protection is considered to be the inflection point of the curve where habitat is lost in an accelerated manner. This method is simpler than IFIM because it requires less field work and less office work with the computer.

The "Q710" flow method is based on drought flows. It is the seven-day duration low flow that occurs once every 10 years. Basically, it was designed as the standard for wastewater treatment. It doesn't relate to habitat protection, however. DER has



A biologist collects aquatic insects on Thorn Creek at near-zero flow.

adopted this "Q710" method for instream flow requirements.

In 1975, Donald Tennant, of the U.S. Fish and Wildlife Service in Billings, Montana, developed a quick, easy method for determining flows to protect warmwater and coldwater aquatic resources. Known as the Tennant method, it is a table-top method (involving no field research) based on U.S. Geological Survey stream flow gauging records. Tennant observed that adverse effects on stream habitat occurred when flows dropped below about 20 to 60 percent of the long-term mean flow, known as the mean annual flow or average daily flow (ADF).

AK: What is the Commission's role regarding instream flows?

LY: The Commission acts as a consultant or advisor on water withdrawal permits and dam encroachments. We make recommendations about instream flow requirements of fish and other aquatic life to DER, which has statutory authority to regulate flows. If DER doesn't accept our recommendations, we have the right to appeal to the Environmental Hearing Board.

The Commission uses a modified Tennant method in most instances. On a higher quality stream, we typically recommend flows of 25 percent of the ADF. Flows as low as six percent of the ADF may be recommended on a low-quality stream, such as one degraded by acid mine drainage. This equals the statewide average of the Q710.

DER only has authority over surface water withdrawals for municipal uses. Surface water withdrawals for other purposes, such as irrigation, snow-making, and groundwater withdrawals, are for the most part unregulated by DER. Currently, DER is working toward new legislation concerning regulation of municipal and other water withdrawals.

AK: In a low-flowing stream, how does pollution affect the water quality and aquatic life? Are pollutants more concentrated?

LY: Pollution is more concentrated. Sewage treatment facilities aren't designed for stream flows significantly less than the Q710—so under these conditions, water quality can be a serious problem. There's less assimilation—less clean water to dilute the wastewater.

AK: Is there any cooperation among other government agencies and the Commission?

LY: We work closely with DER, the Susquehanna River Basin Commission (SRBC), Delaware River Basin Commission (DRBC), Federal Energy Regulatory Commission and the Army Corps of Engineers. We also communicate with western states that have done most of the current research regarding the instream flow problem, as well as various states in the east.

AK: If you could do absolutely anything about the instream flow problem, what would you do?

LY: I would increase awareness and education about the need for instream flow protection. I would have more instream flow research done specific to Pennsylvania streams. Fish need water, but how much water they need can be difficult to determine. There should also be more consideration given to aquatic organisms in review of water withdrawal permits. I would change the release requirement from the current Q710 to flows more in line with the needs of aquatic life. And I would enact new water rights legislation for all water withdrawals and consolidate many community water supplies when such action would benefit the aquatic resource.

AK: What can *Pennsylvania Angler* readers do to help?

LY: They can support legislation that addresses this problem. They can become educated about the instream flow issue. They must recognize that water isn't free or limitless. There are effects from its use. Currently, Pennsylvania's emphasis is on water quality, rather than quantity, which is every bit as important. Water quality can't be preserved if there isn't any water to be preserved.



Focus on *Southeast Pennsylvania*

In southeast Pennsylvania, greater demands are being placed on streams by new and continuing development. Limited stream flows are forced to provide greater amounts of water for household and industrial uses. At the same time, we are requiring those streams to assimilate, or dilute, greater and greater volumes of treated and inadequately treated sewage.

In Fleetwood borough, located in Berks County, the municipality recently applied for a water withdrawal permit that would allocate the withdrawal of up to 350,000 gallons per day from 25 springs. Downstream of these springs is Willow Creek. Willow Creek experiences extremely low flows. On Willow Creek, there are two sewage treatment facilities. At the time of a Fish Commission investigation in 1981, only one operated, the Fleetwood sewage treatment plant.

Above the treatment facility, a section of Willow Creek was nearly dry at the time of the survey. A farmer indicated that in this section the stream had completely dried up the previous week, killing about 100 fish.

At the time of the investigation, the Fleetwood sewage plant inadequately treated sewage. It discharged daily 300,000 gallons of sewage into Willow Creek. Because of the low stream flows, this sewage seasonally contributed at least 95 percent of the stream flow in Willow Creek.

Two miles downstream of the Fleetwood sewage plant, the stream stagnated and once again slowed to a trickle. The primarily sewage stream flow was infiltrating through the stream bottom and possibly into the groundwater system. Farther downstream, the stream channel was dry.

The Commission is concerned that the continued withdrawal of water from springs on Willow Creek may be adversely affecting the stream habitat and reducing the ability of the stream to assimilate sewage treatment plant discharges. The Commission has recommended to DER that a release of 20 percent of the average daily flow of Willow Creek be required as a condition to the withdrawal permit. A decision is still pending at press time.

Individuals also hold the authority to protect instream flows. This protection comes under the so-called riparian water right doctrine. Landowners, including government agencies and private businesses, whose property borders or underlies rivers or streams classify as riparian owners. A riparian right is the right to use water flowing in a stream on or bordering one's land.

Pennsylvania courts generally follow a reasonable use variation of the riparian water right. This means that factors such as the size of the stream, the proposed use of the water and the current uses of the water, influence decisions. But domestic use is given top priority. This includes drinking, bathing, cooking and laundering.

Riparian landowners have an equal right to the reasonable use of the stream flow. If legal action is needed to secure stream flows, the landowner must show proof of land ownership and evidence of the water use.

Crazy

About Ice Fishing?

by William R. Biebel

You don't have to be crazy to like ice fishing, but it helps. Why would anyone in his or her right mind want to get half frozen to death to catch a few oversized sardines? And after the catch you have to clean the slimy little devils when you're so tired and numb from the cold. All you really want to do is bask in the heat of your home with something warm to drink.

Several years ago my wife's cousin Mark, a veteran ice fisherman, persuaded me to go ice fishing for the first time. He parked his car about two miles from the lake, because that was as close as we could get on four wheels. Mark was clever enough to carry the light fishing tackle while I ended up with a five-foot, 30-pound steel bar for chopping holes into the ice. Those were the days before ice augers. By the time we trudged through two miles of snow, the bar across my shoulder felt as if I were lugging a utility pole.

The snow had a hard crust, too. It would support my weight for a while as if I were walking on a paved road. Suddenly, when I least expected it, my foot broke through the crust for a drop of about six inches, but it felt more like two feet. A fraction of a second after my foot stopped its downward movement, the heavy bar caught up to my shoulder with a hard thump. The intermittent breaking through the crust continued all the

way to the lake, and having a very sore shoulder by then, I vowed never to go ice fishing again.

Then there was the booming of the ice to contend with when it's freezing. A small amount of intelligence tells you that when the temperature is below 30 degrees, the ice is not melting or breaking up. But when it is extremely cold and it booms your first time out, you panic and come close to experiencing cardiac arrest. At least it was that way for me.



After a thunderous boom, an enormously long crack slithered across the ice and found its way between my feet. I thought I was a goner. I forgot about the frigid gale and my painful extremities. Mark laughed at my fearful expression, but the veteran was slightly more than bug-eyed himself.

Once a friend of mine living along the shore of Nuangola Lake informed me that the ice was sufficiently thick for ice fishing. Even though the March temperatures were on the mild side and we had recent rain, I had his assurances.

Dawn was breaking and there was just enough light to see. I lumbered down the hill toward the lake. With extra coats and sweaters stretched over my body for warmth, I must have looked like a bear waddling down the incline. I was loaded down with essentials and about 60 items I probably didn't need. Walking at a good clip I stepped onto the ice and *crash!*

Immediately, my right leg sank to mid-thigh in a sucking grip of mud and peat. I dropped my gear, trying to catch myself with my hands. Puddled water on the ice soaked into my gloves, and my free leg bent awkwardly behind me. It took what seemed forever to squirm and unravel myself from the predicament.

With a snappy step I squished back up the hill, jumped into the car and sped home. See what happens when you break a vow? Needless to say, that was my shortest ice fishing escapade ever.

In recent years during the doldrums of winter I have tried to re-stimulate my interest in ice fishing by reading articles on the subject. Had I been able to put some of that information into practice on my first outings, I could have saved myself some anguish.

I wouldn't have had the problem of breaking through the snow if I had worn snowshoes, and an ice auger would have eliminated the heavy steel bar and the aching shoulder. My comment on cleaning slimy fish would have been withheld because I would know that packing the catch in a bucket of snow prevents the fish from freezing, so there's no slime to deal with.

The sport, like any other sport, usually gains fascination the more you know about it. Take ice fishing with natural bait, for example. The fisherman has a varied menu that he can offer the most finicky fish. For an entree there are lively minnows or plump angleworms. On the lighter side, the following hors d'oeuvres entice fish: Caddis worms, found in the bottom of water courses and living inside small sticks or stone case shelters; mealworms, the brownish beetle larvae found in moist, stored grain; mud dauber larvae, found in the nests of the mud dauber wasp; the white larvae of the June bug, found in rotting sawdust; the fly larvae, found in goldenrod galls; and corn borers, found in the cornstalks remaining in winter fields.

Or maybe a nice fillet of pork rind would please the most fastidious epicurean—possibly some delicacies such as salmon

Why would anyone in his or her right mind want to get half frozen to death to catch a few oversized sardines? And after the catch you have to clean the slimy little devils when you're so tired and numb from the cold.



I was caught up in the excitement. The line peeled off the spool and my neighbor said in a whisper, "We have to wait until the line stops."

eggs, fish eyes, doughballs, cheese balls or bread would be acceptable. Surely there are tempting tidbits that I haven't mentioned. Some that take courage to capture. Others, like cockroaches, are too repulsive even to consider, but they are excellent fish-takers.

My readings have informed me about ice safety. First, ice should be a minimum of four inches thick to hold the weight of one adult. Second, groups of fishermen should be avoided if the ice thickness is not five or six inches. Third, be cautious around discolored ice because it may be softening. Fourth, rivers can be especially dangerous because moving water is difficult to freeze. And last, remember that on any waterway the center freezes last.

I've leafed through catalogs and familiarized myself with the selection of ice augers, ice rods, portable tents, colorful lures and lightweight, insulated clothing for comfort. What I didn't find was the spark to ignite my enthusiasm and try fishing again.

Then one cold and gloomy Sunday afternoon in February, when I was looking for something to do, a neighbor asked me to go ice fishing with him. I told him I had always found it ungratifying, but after a little coaxing I went along for the observation, not the participation.

Contrary to my misgivings, I helped him cut a few holes with the ice auger, and I enjoyed it. He set up his five tip-ups and baited them with minnows. After a short period while we stood and talked, he yelled, "There goes the flag!" And he ran to the busy hole with me close behind.

I was caught up in the excitement. The line peeled off the spool and my neighbor said in a whisper, "We have to wait until the line stops."

Waiting anxiously we never felt the cold—only the warm thrill of knowing there was a fish on the end of the line.

The reel stopped, and when it started again my friend gave a good yank. He set the hook and hand over hand pulled in a lively 21-inch pickerel. The spark had finally ignited and from that time on I became hooked on the sport—just call me crazy about ice fishing!

Are All Fishing Lines the Same?

by Art Michaels
photos by the author

If what is popularly known as the age of specialization continues in the 1990s, then fishing line manufacturers are right on target. From Berkley's Cold-Weather Trilene and Du Pont's Magnum series lines, to Bagley's Silver Thread AN40, the future holds possibilities that could revolutionize not only the fishing line industry, but the entire fishing tackle industry as well.

Specialization in fishing line manufacturing is evident in the increasingly large assortment of lines you can buy for different fishing conditions. But are the marketing and advertising that promote this great variety of lines just hype? Do they hide the simple fact that all fishing lines are actually the same?

No. Lines aren't the same. And understanding their differences—and similarities—can help you buy line that more closely meets your needs. Understanding line differences can also help you fish more effectively.

To understand how fishing lines are different, consider first how line is made.

"We start with a polymer chip, which is a nylon material," says Dan Foote, Berkley's director of chemical research. "We purchase the monomers—the chemical raw materials with which we make the nylon. By varying the ingredients, we create different kinds of nylon, and our monofilament lines thus have specific, different properties."

"For instance, one ingredient adds flexibility and another adds strength. There's strength and flexibility in all our nylons, but by blending them differently, we make monofilaments that are designed for specific uses."

Extrusion

The process of manufacturing monofilament line is like baking cookies from scratch. Berkley and other line manufacturers place these small cubes of nylon with other ingredients into an extruder—a precise mechanical device that works like a meat grinder.

Nylon melts at about 200 degrees Celsius, so to make fishing line, companies first heat the nylon. When they extrude it under pressure, the nylon mixes with other components and oozes through small holes, creating spaghetti-like strands.

Color is one of the ingredients companies add during the extrusion process so that lines are dyed completely through. Line strength—four-pound-test, six-, 10-, 17-, and so forth, is determined by the size of the holes through which the line is extruded.

Stretching the line

After the line is extruded, it is cooled in water and stretched between two sets of spool-like rollers. This process aligns the nylon molecules so that they face the same direction—a process that makes line strong and reduces its diameter. Manufacturers also give their monofilament lines even more different characteristics by changing the line draw ratios—the way in which the line is stretched and cooled between the rollers.

The process of stretching line can be likened to traffic bottlenecked at a busy turnpike toll booth. Traffic approaches the toll booth from different directions. But as the cars enter the toll gate, they face the same direction and the diameter of the flow becomes smaller.

Cofilament connection

Du Pont makes its cofilament lines by continuing the process. "We lead the line into another space that has a second extruder pumping material around the outside of the first," says Bob Fish, a Du Pont research associate. "So what comes out is the material from the first extruder, which is on the inside, and a totally separate material, which is on the outside."

"The material that's on the inside, the inner core, is about 10 to 15 percent of the cross section, and it has extremely high sensitivity," says Fish. "But it gets too stiff to make a good fishing line by itself. The material on the outside is regular-strength, so it's supple enough to make a good fishing line, but it has lower sensitivity than the core material. The two materials work together to make line that's both castable and highly sensitive."

Co-polymer line

In cofilament lines the materials that are extruded together are different. It's not the same as combining ingredients, mixing them, and extruding them into one product. However, Berkley and Bagley's Silver Thread, to name two line manufacturers, do extrude one line by mixing different nylon formulas. In this way the companies make co-polymer lines.

"Our TriMax line, for instance, is a single monofilament," says Berkley's Dan Foote, "but it's made up of more than one polymer. Because of the way line cools when it's drawn, you get different properties. Line cools from the outside in, so there's always a skin on the line strands that's different. Aligning the molecules during the drawing process builds strength into the line, and that's what TriMax is. The 'Tri' in the name initially meant three monomers, and the name tied in nicely with our Trilene family of lines. The 'Max' means that it's the maximum strength line you can get."

"The molecules of the two polymers we use in our lines bond in a weaving or mesh-like pattern," says Frank Wilhelm, Bagley's Silver Thread's advertising and promotions coordinator. "Our line has the same structure throughout, but conventional non-polymer lines link end on end in a single line, like single-link chain. Our lines have the characteristics of multiple links that are intertwined, like stranded cable. "That's why our lines are so strong with such small diameters."

Essential line properties

Even though fishing lines might look alike, their ingredients and manipulation during the manufacturing process can imbue them with greatly different qualities. In a paper released at the 1981 American Fishing Tackle Manufacturers Association annual exhibition, Du Pont research manager Dr. John E. Hansen identified seven essential properties of fishing line. They are:

● **Knot strength.** Protection from knot breakoffs, especially in knots tied improperly.

● **Abrasion strength.** Lets the line resist cuts and nicks.

● **Shock strength.** Lets the line tolerate quick stress, including setting the hook or yanking to free snagged line.

● **Tensile strength.** Shows the association between the line diameter and the break load.

● **Proper limpness.** Assessment of the line's flexibility, which most often affects its casting qualities.

● **Controlled stretch.** Dampening quality of the line that lets it stretch and recover.

● **Visibility.** Colors that let the angler control the line.

All of today's fishing lines incorporate these qualities to some degree, but modern specialty monofilament lines are manufactured to satisfy today's anglers—people who are more technically skilled than previous generations of anglers, and whose expectations now require a more technically demanding fishing line.

Specialization

Du Pont's Prime Plus, for instance, is geared toward increased sensitivity—when fish are biting lightly. Similarly, Du Pont's Magnum Series lines are oval-shaped. They're made for baitcasting reels so that they cast easier with a higher break point.

Berkley's XL lines were originally designed for panfishermen using spinning reels—"XL" stands for "extra limp," a welcome quality for light reels and reasonably small fish. Berkley's XT lines were made for use in and around stumps, logs and other structure. The "XT" stands for "extra tough," so the line stands up to some abuse.

Berkley's cold-weather line is very flexible for use in cold water, which stiffens it. The company created it by rearranging the ingredients.



Bagley's Silver Thread lines are made with a different idea in mind. "The AN40 line is so well-balanced, it fits more than one niche, which makes it an all-purpose line," says Frank Wilhelm. "The line does all things well."

The future

"Berkley will always be trying to make a stronger line—a stronger monofilament," says Dan Foote. "In our surveys of anglers, when we ask them, 'what's the most important property of fishing line?,' they tell us 'strength.'"

"The biggest industry trend for the future is what's going on now," says Du Pont's Bob Fish. He says that anglers are becoming more sophisticated. They have higher expectations and they want their fishing lines to meet their more technically demanding standards. He expects to see lines becoming even more specialized to meet angler requirements.

"For us, you're going to see enhancements of certain line characteristics," says Bagley's Frank Wilhelm. "Because our line does everything well, you'll see changes in characteristics to make certain line qualities better without harming the other good features."

Wilhelm says that the future of fishing line research and development is a gold mine for chemists and engineers. "We've got some ideas down the road that are in an opposite direction from conventional thought."



In 50 years, maybe less time, he suggests, we could be fishing with literally thread-like line, but that line will be even stronger than today's monofilaments. The presentations would be very natural. There'd be no spooking fish with the line. And the same technology that could make line much smaller and much stronger might also revolutionize the entire fishing tackle industry. Terminal tackle would have to be down-sized proportionally for use with the new super-thin line. Reels would also be micro-sized to accommodate the line.

If these changes come to pass, how will we anglers and the sport we enjoy change? Will we be able to fool fish even more easily than we can today? How will these technological changes affect our conservation ideas and practices? We'll have to wait to learn the answers.

Continued
ANGLER



Some Monofilament Line Sources

Abu-Garcia, Inc., 21 Law Drive, Fairfield, NJ 07004.
Ande, 1310 53rd Street, West Palm Beach, FL 33407.
Bagley's Silver Thread, P.O. Box 110, Winter Haven, FL 33882.
Berkley, Inc., One Berkley Drive, Spirit Lake, IA 53160.
Du Pont Company, 1007 Market Street, Wilmington, DE 19898.
Fenwick, 5242 Argosy Drive, Huntington Beach, CA 92649.
Hi-Seas Industries, Inc., 18-22 Minetta Lane, New York, NY 10012.
Maxima Fishing Lines, 5 Chrysler Street, Irvine, CA 92718.
Shakespeare, 3801 Westmore Drive, Columbia, SC 29223.—AM

PADDLEFISH

Paddlefish are one of the great and intriguing large river fishes native to Pennsylvania. They are one of the largest freshwater fishes, reaching lengths of six feet and weights in excess of 100 pounds! Paddlefish were part of the native fish fauna of the Ohio and Allegheny rivers in Pennsylvania. Paddlefish habitat destruction in the late 1800s and early 1900s through the lock and dam navigation system, dredging, and deteriorated water quality led to population decline since the early 1900s. The last record for paddlefish in Pennsylvania waters was 1919. This big river fish is presently classed as extirpated from the Ohio River, meaning it had disappeared from Pennsylvania. They still exist downstream in the Ohio River, but are about 300 river miles from the state line or 340 river miles from the city of Pittsburgh. Experts have speculated, based on the present

rate of paddlefish range repopulation in the Ohio River, they may reach Pennsylvania waters in about 10 years. The Pennsylvania Fish Commission feels the 10 years for return is a "long shot" and, based on our river sampling data and data and information of others, we should take a proactive role to return paddlefish to part of its historic range.

Why consider paddlefish restoration?

Many western Pennsylvanians are fully aware of how the quality of their life and aquatic life had been negatively affected by poor water quality in the Three Rivers system. Poor water quality was a result of pollution from coal mining, steel industry, other factories and sewage. The overall water quality picture has improved during the last 30 years in the upper Ohio River in Pennsylvania. Fishing for channel catfish, sauger,

smallmouth bass, muskies, white bass, walleye, spotted bass and drum is again a very important recreational component on the Ohio, Allegheny and Monongahela rivers. In the past 10 years, biological data gathered by the Fisheries Management Division of the Fish Commission from the Ohio and Allegheny rivers and larger tributaries, have shown expanding populations of riverine species such as sauger, skipjack herring, spotted bass, goldeye, flathead catfish, white bass, emerald shiners, spotfin shiners and others. Zooplankton are the primary food of most larval fishes and are an important component in the diet of juvenile and adult stages of some fishes mentioned above. It is felt that the recent fish species abundance, zooplankton abundance and water quality in the Ohio and Allegheny rivers is indicative of conditions suitable for paddlefish survival. The diet



John E. Mohr, Jr.

PADDLEFISH ARE ONE OF THE LARGEST FRESHWATER FISHES, REACHING LENGTHS OF SIX FEET AND WEIGHTS OVER 100 POUNDS. THEY WERE NATIVE TO THE OHIO AND ALLEGHENY RIVERS IN PENNSYLVANIA. BUT HABITAT DESTRUCTION AND POLLUTION IN THE LATE 1800S AND EARLY 1900S CONTRIBUTED TO THEIR POPULATION DECLINE. THE LAST RECORD OF PADDLEFISH IN PENNSYLVANIA WAS 1919.

RESTORATION

IN PENNSYLVANIA *BY RICK LORSON*



John E. Muhn, Jr.

of paddlefish is zooplankton for its juvenile and adult stages.

Habits, habitat

Since this species was last documented in Pennsylvania in 1919, we should all learn something about them. Much of the knowledge about paddlefish originated in the midwestern states where wild and hatchery supplemented populations have endured

and sometimes thrived. Other common names include spoonbill or spoonbill cat. The paddlefish is a primitive species distinguished by its elongated rostrum (paddle) that is about one-third the length of its scaleless body. The skeleton is mostly cartilage, with the only bony material in the jaws, which is also used to age them. They have small eyes and are considered to have poor eyesight. They are also readily

distinguished by their large "heterocercal" tail (like a shark's tail).

Paddlefish spend most of their time in slow-moving water such as back channels, lower ends of pools, and below bridge supports. These areas harbor larger concentrations of microscopic aquatic animals called "zooplankton" that make up the bulk of the paddlefish's diet. The ability to grow to 100 pounds feeding on food items the size of the head of a pin is part of what makes this one of the great river fishes! They feed by opening their large mouths and filtering water across their long, closely set gill rakers catching zooplankton.

Male paddlefish mature at about eight years old and females at about 10 years old. For successful spawning, they require clean gravel which still occurs in portions of the Ohio and Allegheny rivers. It is felt that the overall requirements to allow paddlefish to survive and reproduce now exist in the Ohio and Allegheny rivers in Pennsylvania. In midwestern states where spring fishing for paddlefish is allowed, the scene can be compared to what fall salmon fishing is like in tributaries to Lake Erie or Lake Ontario. However, paddlefish do not die after spawning and must be protected from overharvest in some areas, or total protection in areas where their numbers are low.

Reports from catches in Missouri and Montana show the average weight to be 40 pounds, and length ranging from 37 to 57 inches.

The Fish Commission does not anticipate establishing fishing for paddlefish at this point and they will be protected from illegal harvest by future regulations.

**FOR SUCCESSFUL
SPAWNING, PADDLEFISH
REQUIRE CLEAN GRAVEL.
THE REQUIREMENTS
THAT WOULD LET
PADDLEFISH SURVIVE
AND REPRODUCE EXIST
NOW IN THE OHIO AND
ALLEGHENY RIVERS IN
PENNSYLVANIA.**

Scope of the plan

This plan demonstrates that private individual involvement sometimes does benefit our aquatic resources. Back in the early 1980s, an interested citizen from the Pittsburgh area, Mike Koryak, suggested the idea of restoring extirpated fishes to the Ohio River. A project did not materialize at that time for various reasons. Mike presented the thought of paddlefish and sturgeon restoration again to the Commission in early 1989. Several people in the Bureau of Fisheries researched the problem, and subsequently decided it was desirable and feasible to proceed with a Paddlefish Restoration Plan. The "Resource First" philosophy prevailed to set the project in motion.

The Pennsylvania Fish Commission's primary objective is to restore a paddlefish population to the Ohio and Allegheny rivers in Pennsylvania. This would allow an upgrading of the state status to endangered from extirpated. Stocking that occurred in 1991 was the first leg of the 10-year plan. Paddlefish hatchery methods developed in Missouri, South Dakota and Texas are now being used in Pennsylvania.

The Linesville Fish Culture Station successfully reared 2,200 fish for stocking in 1991. These fish were large and healthy when stocked in late August with the assistance of district waterways conservation officers. Stocking will occur annually and we will determine if any are surviving during future sampling. This is necessarily a long-term project since it requires 10 years for a female paddlefish to mature. One can also see that this project has already and will continue to involve many people within the Fish Commission. This plan will not negatively impact current management and stocking programs for other warmwater or coolwater species. Even though we may not be able to fish for paddlefish for years to come, anglers and non-anglers alike should be able to see the benefits of the program. Paddlefish roaming the waters of Pennsylvania are an ecological indicator of an improved quality of life and quality of our environment. It is a payback to these rivers of something that belongs there. It is also a payback for the improvements made in river water quality through the efforts and cooperation of resource agencies, industry, local governments and individual citizens. However, the Three Rivers area water quality is still a long way from what it once was, with a multitude of problems to be tackled. Only by continuing the hard work of pollution monitoring, reduction and cleanup can all fishes, including paddlefish and sturgeon, be expected to survive and reproduce in the Three Rivers area. Gauged by the results of the last 20 years, we feel Pennsylvanians will accept the challenge.



John E. Mohr, Jr.

RAISING PADDLEFISH

The Linesville Fish Culture Station made its first experimental attempt in 1991 at raising paddlefish. We contacted the Missouri Department of Conservation and eggs collected from wild fish arrived in early April. The eggs were shipped via a commercial airline just before hatching. In fact, they hatched in transit.

We kept the fry at the Linesville Fish Culture Station hatch house in small stainless steel "starter" tanks that are used for newly hatched fish. We fed the young paddlefish a commercial fish food via timed automatic feeders and we maintained the water temperature at 60 to 70 degrees. As the fish grew, we gave them more space by transferring them to larger concrete tanks in the building. Eventually we took them outside to a raceway.



From April to August, the fish grew from one-half-inch to an average size of 15 inches. We stocked the paddlefish into the Ohio and Allegheny rivers in the Pittsburgh area to reintroduce this species that once inhabited those waters. To their new homes we transported three loads, more than 2,000 paddlefish, in large 1,200-gallon tanker trucks.—James E. Harvey, Manager, Linesville Fish Culture Station.

Kid's Page!

by Kelly F. Countouris

Comeback of the Year

Paddlefish have not been seen in Pennsylvania's waters since 1919—not until this past summer, that is! Fish Commission biologists are trying to help the paddlefish make a comeback in western Pennsylvania. In the summer of 1991, some 2000 paddlefish were stocked in the Ohio River.

Paddlefish were once found in the Allegheny, Ohio, and Clarion rivers and in Lake Erie. They left these waters in the early 1900s. Locks and dams were built, the rivers were dredged, and the waters were polluted. All these changes meant bad news for paddlefish. They soon found their homes in western Pennsylvania were no longer fit for them. Since then, there has been a great effort to clean up these waters.

Now the Ohio and Allegheny rivers are much cleaner. Many fish that left these rivers because of pollution are now returning. The paddlefish too may soon call these rivers home again.

What are paddlefish and why are they important? The easiest way to identify a paddlefish is by its rostrum. The rostrum is the paddle, or bill, that sticks out above the fish's mouth. The paddlefish uses its rostrum to detect food. Paddlefish are filter feeders. This means that once a paddlefish finds food, it opens its mouth and lets water drift across its gill rakers. Very small water animals, called zooplankton, are caught by the gill rakers and eaten. Paddlefish have small eyes. They do not see well. But they can have very big bodies!

Paddlefish are one of the biggest freshwater fishes around. They can grow up to six feet long and can weigh more than 100 pounds. Now that's a heavy hitter! The paddlefish's skeleton is made of cartilage (not bone). Its body is smooth with few scales. Above the lateral line, paddlefish are bluish-gray or black. Below the lateral line, the color fades to white.

Paddlefish like to live in areas that have slow-moving waters.

They can be found in pools below sandbars, near islands, and in back channels. With Fish Commission help, the paddlefish may once again get to bat and become a major player in the Ohio and Allegheny rivers.

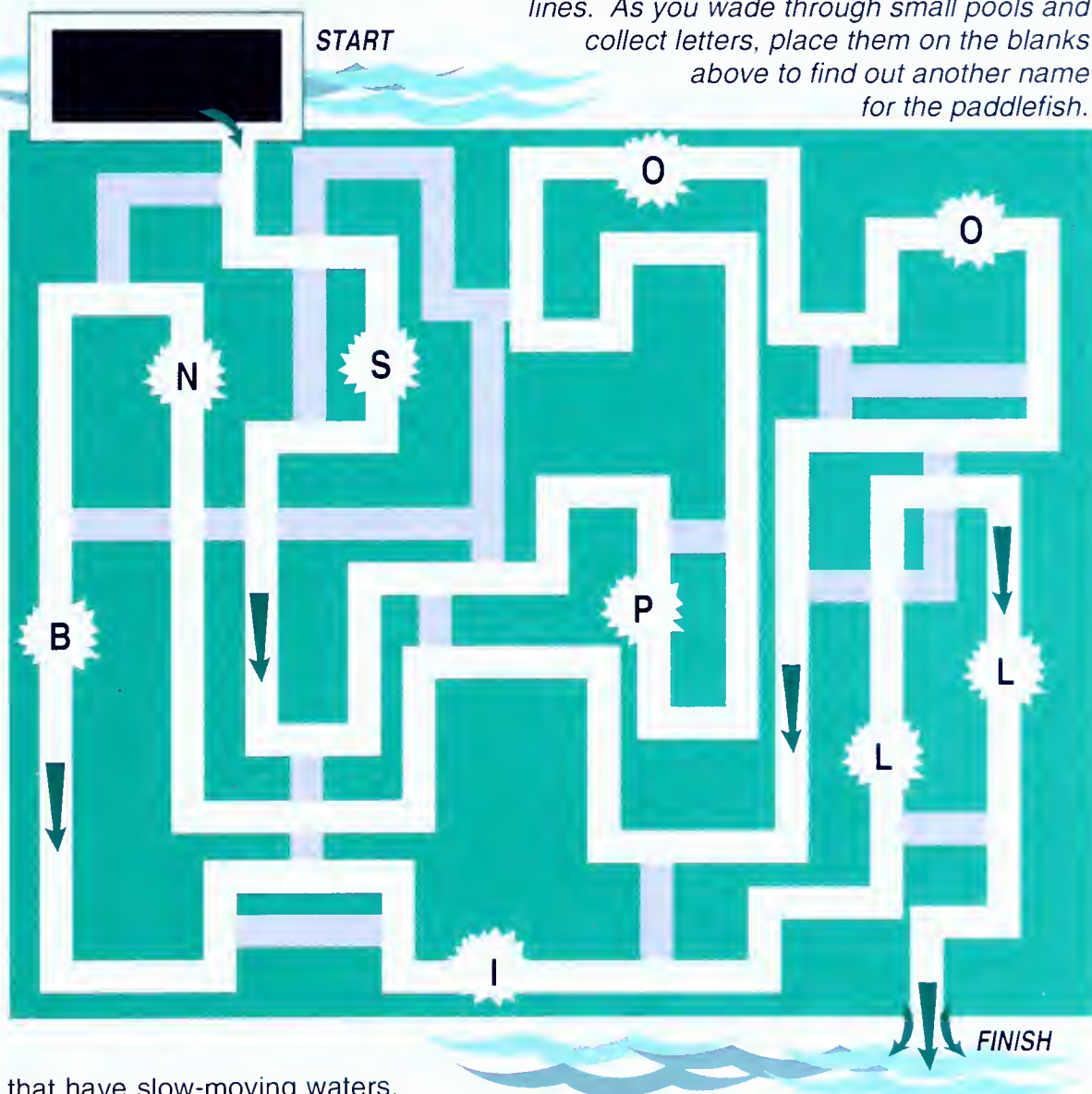
See if you can match the words below with their correct definitions.

You can read the story again to find the answers. Look in a dictionary for extra help.

1. pollution
2. rostrum
3. filter feeder
4. gill rakers
5. zooplankton
6. cartilage

- a. clear, elastic tissue that makes a skeleton
- b. tiny water animals
- c. long snout or bill (paddle)
- d. dirty; unclean because of people
- e. eating by letting water drift through the mouth
- f. the bony part of a gill arch that keeps solids from the gills

Help the paddlefish get through the maze to the river. Follow the path without crossing any solid lines. As you wade through small pools and collect letters, place them on the blanks above to find out another name for the paddlefish.



Comments on smallmouth regs

I'm sure heads of governmental agencies are accustomed to receiving mail highly critical of their actions. However, that is not the theme of this letter.

For several years a group of us has fished the Susquehanna River at Harrisburg with a guide. We fly fish for smallmouth bass using barbless hooks, releasing all fish, and we always have an enjoyable trip. What was striking about our recent trip last September was the proportion of larger fish (12 to 15 inches).

It appears your new regulations for this section of the river are already beginning to pay off. I commend you for your efforts in upgrading and protecting this valuable fishery, as I'm sure there was a lot of opposition to the changes.

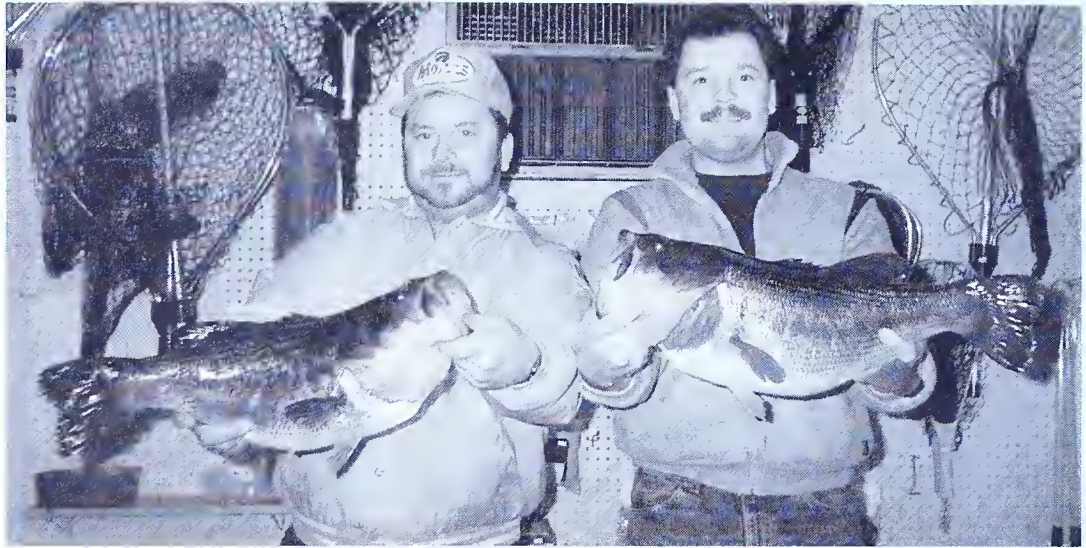
You can bet we'll be back! Your work is definitely appreciated—thanks again.—*James L. Corbin, Yellow Springs, OH.*

Canadohta Cupid

On Valentine's Day my boyfriend deserted me to spend the time ice fishing in Lake Canadohta. He returned with a "honey" of a fish! It took him 25 minutes to land the 51 1/2-inch, 37 1/2-pound musky with a 25-inch girth. He used 17-pound-test line on a tip-up with a three-inch shiner for bait. Two days later there was a fishing contest at Lake Canadohta. The prize-winning fish was a 31-inch musky!—*Karen E. Watkins, Sewickley, PA.*



Joseph E. Losco, of Sewickley, PA, with his 51 1/2-inch Valentine's Day Lake Canadohta musky.



These largemouth bass are "twins" (each is seven pounds, 23 inches) caught through the ice at Shohola Lake. Kevin (left) and I (right) were ice fishing for several weekends at Shohola with nothing more to show than a few small pickerel. Last February all that changed. At about noon one day, we caught a two-pound largemouth in the channel. I quickly moved all my tip-ups out to deep water and about 20 minutes later I nailed the big one. Kevin then moved all his tip-ups to the deep water, and again, 20 minutes later he caught the "twin." I know that catching a five-pound bass is tough, but to catch two seven-pound bass back to back has got to be special. I hope you will share this story with those ice fishermen who try to justify to themselves, "why are we here at 10 degrees, freezing to death and not ever catching anything?" Let me tell you: Determination and patience pay off. One catch like this and it all makes sense.—Andrew S. Kozusko, Bethlehem, PA.

Drive-on trailer or not?

No one told me whether or not the trailer that came with my 15-foot boat and outboard is meant for drive-on retrieval. How can I know for sure whether drive-on retrieval for my rig is safe or practical?—*Robert Morton, Norristown, PA.*

There aren't any strict guidelines for determining whether or not you should retrieve your boat by driving it onto your trailer. One way to find out is to ask the dealer from whom you bought the rig, or call the manufacturer.

Generally speaking, trailers meant for drive-on retrieval feature frames that lie close to the road. You'll find the least ground clearance on these kinds of trailers. The tires and fenders lie noticeably high above the frame. These construction features let you position the trailer on most ramps for drive-on retrieval without needing to back the tow vehicle far into the water.

Manufacturers and dealers often match bass boats and water ski boats with trailers meant for drive-on retrieval.

Trailers not meant for drive-on retrieval feature bunks or rollers mounted higher above the trailer frame. These trailers have more ground clearance, and drive-on retrieval isn't practical with these rigs. You have to back the tow vehicle

farther down the ramp into the water to position the bunks or rollers properly. This maneuver can be unsafe, especially on ramps that are slippery, unimproved or damaged.—ed.

PA pilgrimages

For the past two summers I have scheduled my pilgrimages back to green and damp climates—home—around the Pennsylvania Fish-for-Free Weekends. I think the concept of a license-free weekend is a marvelous way to bring anglers into the state. I hope it will be continued, perhaps even publicized more heavily out of state. The program is a worthwhile investment that ought to be protected from budget-cutters.

Even though I was raised in Delaware County and went to college in Carlisle, I no longer have many sentimental ties to take me back to Pennsylvania, and I cannot afford to make many or long trips "back East" anyway. So I try to make every moment and dollar count in the week or so every year that I can spare for eastern pleasure and business.

Having a two-day opportunity, rather than one (as in Nevada and adjoining states) makes it worthwhile for me to piggyback a Pennsylvania trip with visits to friends in upstate New York. The extra day gives me time to travel, explore, get oriented and

do a little fishing. If there were only one Fish-for-Free Day, I would begrudge the time and probably would spend it on New York streams (where I would already have a nonresident license). Were there no fish-for-free opportunities, I almost certainly would have no reason to set foot in Pennsylvania.

Each time I have introduced one or two of those friends to Pennsylvania waters, bought some tackle in Pennsylvania fly shops, spent some money in Pennsylvania motels and restaurants, and enjoyed some first-class Pennsylvania trout fishing. At least one of my friends bought a non-resident license as a result.

I talk up the program—and the state—to the 100+ members of the Las Vegas Fly Fishing Club and to the Nevada officials with whom we do our conservation projects. The club members seem interested, and the officials express their admiration for (yet another) Fish Commission program done well. I am happy to do what I can to publicize Pennsylvania fishing more, using the weekend as the “hook.”

My job, not my choice, holds me in the desert for the foreseeable future. Until I can get back to the Northeast and buy a Pennsylvania fishing license, I will try to get back “home” via the Fish-for-Free Weekends.—Bruce Pencek, Henderson, NV.



Jeannine Markowski holds up a 17-inch largemouth bass she caught and released last June at Gifford Pinchot State Park Lake. Her grandfather, Robert H. MacGinnes, Sr., looks on in the background. Nice fish, Jeannine!

“Corkers,” like those pictured here, represent mayflies, stoneflies, caddises, terrestrials, baitfish and other aquatic life. A recent ruling by the Commission’s chief counsel now makes them legal on fly-fishing-only areas. Corkers representing other forms of food or bait such as cheese, corn, pellets and grapes are not legal on fly-fishing-only areas but are permissible on the Commission’s catch-and-release areas where hares and flies are deemed legal. Over the years there has been much confusion concerning the use of corkers and the Commission wanted to clarify the issue. For more information on corkers, contact Bill McIntyre, 106 White Gates Road, Pittsburgh, PA 15238. Mr. McIntyre is the only individual known to produce this product.



Art Michaels

Thumbs up on issue

I want to express my satisfaction and pride in reading the September 1991 *Angler* article “The Rockwood School District’s Fish Farm,” written by Bob Hook. Aquaculture represents not only a new field of agriculture, but also a refreshing change in agricultural education philosophy. Several agriculture teachers and I began working with the idea of developing an aquaculture facility for use in high school agricultural education programs over two years ago. Concurrently, there were other innovations sweeping into agriculture programs including water resources, hydroponics and environmental education. The September 1991 *Angler* dedicated to education supports our efforts in promoting diversified and relevant educational programs.

The article about Rockwood’s aquaculture program is representative of over 40 such programs under way throughout Pennsylvania. However, the insight into changes occurring within agricultural education provided by Mr. Hook and Mr. Vought were exceptional. What we are witnessing is a holistic approach to education. Within agricultural education, there exists the FFA (formerly known as Future Farmers of America), a youth development component that in Pennsylvania features local and state contests in such areas as wildlife and aquatic resources. The Aquatic Resource Contest features identification of aquatic animals, plants and insects common to Pennsylvania. A written exam covers aspects of water resource management, aquatic ecology and human interaction and will eventually include aquaculture. The contest concludes with field practicums in water testing and sampling and other field techniques.

Students involved in an aquaculture project gain experience in biology, feeding, chemistry, mechanics, electricity and

more. The mention made by Mr. Vought about aquaculture serving as a medium for students to explore the science, technology and societal impact of agriculture is on the cutting edge of educational change.

I applaud you and the authors for covering what I believe is just the beginning in educational reform both within agriculture education and within education as a whole.—George R. Vahoviak, Instructor, Penn State College of Agriculture.



Art Michaels

Meet Jerry Paul, a Commission fish culturist. Jerry started working for the Fish Commission at the Benner Spring Fish Culture Station on November 23, 1966. He later transferred to the Pleasant Gap Fish Culture Station. Jerry has 25 years of service with the Fish Commission and has been involved in all areas of fish culture. This work includes spawning trout, incubating eggs, caring for trout, giving guided tours, and driving trucks for the “Great White Fleet.” His hobbies are hunting and fishing and he likes to attend local sporting events. Jerry and his wife, Beverly, have two children—Tricia, who attends Penn State, and Jeremy, a junior at Bellefonte Area High School.

Federal Recreational Vessel User Fee

The Federal Omnibus Budget Reconciliation Act of 1990 requires owners of powerboats or sailboats over 16 feet in length to pay an annual fee and display a special decal on their vessels on certain waters. Failure to display the decal when required can result in a civil penalty of up to \$5,000.

The Commission will not collect fees required by this new law, and the Commission will not enforce the law. It is a federal law, not a state law.

The decal need only be displayed on certain Pennsylvania waters. Those waterways are: Lake Erie,

the Allegheny River (to mile 70 at East Brady), Beaver River (to mile 2.0), Cheat River (to Cheat Lake Dam), Crooked Creek (mile 1.5), Little Beaver River (mile 1.0), Monongahela River, Ohio River, Redbank Creek (mile 1.5), Youghiogheny River (mile 3.0), Delaware River (below Trenton), and the Schuylkill River (below the Philadelphia Art Museum).

Boat owners can order recreational vessel fee decals by calling toll-free 1-800-848-2100. The Coast Guard also maintains a toll-free number for questions about the new law. All inquiries should be directed to 1-800-368-5647.—*Dan Martin.*



Dedicated to the sound conservation of our aquatic resources, the protection and management of the state's diversified fisheries, and the ideals of safe boating and optimum boating opportunities.

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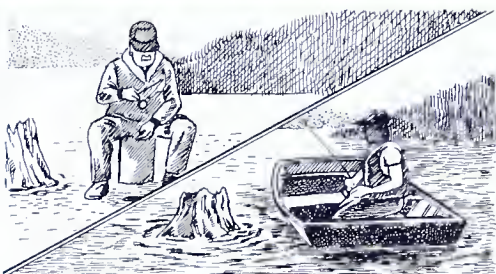
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Angler's Notebook *by Joe Reynolds*



Try ice fishing in the same locations that are productive during the hottest periods of summer. Chances are those summertime fishing spots will pay off in the winter just as well.

First stop for beginning ice fishermen should be a local tackle shop. When talking about ice fishing gear, nothing beats hands-on experience. If ice fishing is under way, go to a nearby lake and check out what the locals are using.

Line is even more critical when ice fishing than at other times of the year. Strikes are usually soft and difficult to detect. In most cases, strikes are easier to feel when using small-diameter line from 2- to 6-pound test.

Store monofilament in a dry, dark place where it won't be in direct sunlight. Sunlight and battery acid are about the only things that can damage monofilament.

Clean your tackle box and lures with fresh water and separate the lures in compartments in an orderly fashion. Place the topwater baits in the top trays, then sub-surface lures in the next level and so on.

Store rods by hanging them straight down from nails or cup hooks. Avoid leaning rods against walls. This can cause warping over several months of storage.

Before pulling a knot tight, wet the loose knot with saliva. It is important to pull every knot tight, and the moisture makes the line slip easier and pull tight.

Depth finders provide not only depth readings, but they also can provide information on the actual composition of a lake bottom. This is a good time to familiarize yourself with all the functions of your depthfinder.

Rough rod guides can fray monofilament line. Check guides with a cotton swab. Rough guides should be replaced or filed smooth with a fine file. If there is any doubt, replace the guide.

Stretching monofilament line reduces line strength. If a lure snags on the bottom and you have to stretch the line to get it loose, it is a good idea to cut off all the line from the lure to the spool.

Scientists tell us that the first fishing reels were used in China and probably were patterned after the bobbin used in silk weaving. The first known picture of a fisherman using a reel is a Chinese painting from the 13th century.

Check the retrieve ratio of your reel. A high gear ratio lets more line be pulled in with each turn of the handle. Lower ratios are preferred for some types of fishing, such as deep-diving or "crankbait" fishing, to achieve the utmost lure action.

Rod stiffness is a consideration in selecting monofilament. Heavy line is better suited to stiffer, heavier rods. Lighter lines need the cushioning effect of a lighter, more flexible rod.

illustration- George Lavatish

On the Water

ON THE WATER

with Dave Wolf

Why 10 Percent?

Despite the fact that fishing opportunities across the Commonwealth continue to expand, the old survey figure of 10 percent of all anglers catching the majority of the fish still exists. I question such statistics and find it hard to believe that with modern technology, which goes as far as marking fish for anglers on a graph, that angler success rate has not increased dramatically.

The statistics are disturbing in part simply because I want to see anglers enjoy a greater success rate and I worry at times that I am not doing my job properly if they do not. Most of my friends are in the 10 percent that catch the majority of fish, although I have been introduced to and have spoken to many who are not.

Fish Commission stream and lake surveys are eye-opening because in almost all cases the fish are there for the taking, so the problem cannot be blamed on lack of fish. Could it be that fish are simply smarter than the average angler? I dismissed that thought quickly. After all, for the most part we are intelligent human beings or we would never have been able to cast a baitcasting reel without continual snags. Common snags, yes, but we are able to use them with a little practice with some degree of success.

OK, the fish are available, the equipment is far superior to what we had in the past and the fishing tackle industry has developed some mighty fine lures and flies over the past 10 years that definitely should increase our odds. Still, the 10 percent figure hangs somewhat like a black cloud over many anglers' heads.

I'm still looking for answers along the flowing and still waters of the state, and although there is much confusion in my own mind over the issue, I have drawn some rather non-scientific conclusions of my own. These, of course, are arguable and I certainly welcome the opinions of others, especially those of the 90 percent still not catching fish in significant numbers.

First of all I compared fishing to golf. Don't ask me why, but as a weekend duffer I thought I could draw some parallels. The first thing that came to mind was to ask how many golfers break a score of 100 consistently. Although I do not have the exact figures, it certainly is not a lion's share of weekend golfers. How many bowlers break 150? And what about competitive sports such as tennis and racketball in which comparisons can be drawn only by the caliber of player?

I realized that most become proficient at their endeavors by reading, watching and learning from the more skilled and then putting it all to practice. One rarely becomes as good at a sport by participating only on weekends than those who practice week in and week out. I, for example, fish on the average of 500 hours per year. I read nearly that much on the subject and I spend nearly the same amount of time tying flies and preparing equipment. Yes, I take the sport seriously. In fact, it is indeed a large chunk of my life.

I have friends who fish a few weekends per year and occasionally while they are on vacation. They read little, rarely study more successful anglers' techniques and pay attention to their equipment only when it malfunctions. I suspect that the majority of anglers



Jimmy Avers

fall into this category and that's OK. But because they take the sport so casually they will never fall into the 10 percent that continually catch fish.

Of course, enjoyment of being on the water does not depend on catching fish, and I suspect that most casual anglers are more relaxed in their fishing than I. There is no need to, and it is probably impossible to, excel at everything one does.

Fishing, then, is what you make it. Mold it into your life in any form you wish. Those 10 percent, I assure you, spend endless hours learning about and pursuing fish and that may be too much of a demand on a person's time or personal preferences. Fishing can be, and I believe should be, relaxing and an escape from the rigors of daily life. For the majority of the 10 percent, it is an all-consuming sport and they are never fully satisfied with their achievements. They, for the most part, are a driven lot and cannot pass by water of any sort without laying a cast on the water. At the very least they will make a mental note to find out exactly which species of fish live in those waters and will plan an excursion there.

Belonging to the 10 percent does not come without a price tag of time and effort and a devotion to the sport that does not compare to other recreational pursuits of one's life. Not belonging to the 10 percent may mean fewer fish on some days, and perhaps days that you will outfish that 10 percent. But if it brings you satisfaction and pleasure, that is all that matters.

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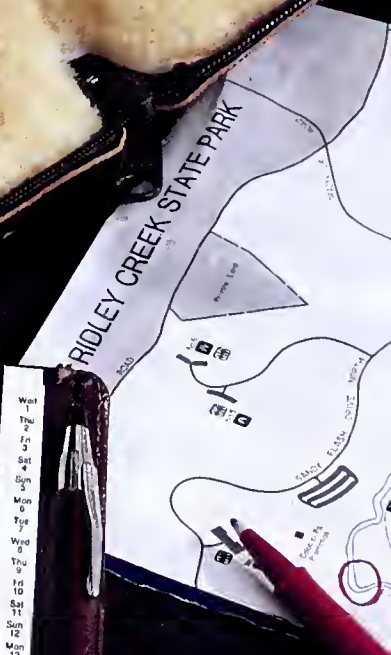
Pennsylvania ANGLER



MARCH 1992

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APRIL HOLIDAYS
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18 PASSOVER
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Straight Talk

Conservation Law Enforcement: An Important Management Tool



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

Many tools are available to the Commission to provide fishing and boating opportunities and manage Pennsylvania's aquatic resources. One of the most important tools is sufficient conservation law enforcement effort to enforce current laws, rules and regulations designed to protect the aquatic resources and its users. Without effective law enforcement, necessary management of the aquatic resources and its users would be nearly impossible.

In 1991, the Commission had more fully trained waterways conservation officers in the field than at any time in recent history. All 72 districts were fully manned and 11 additional fully trained officers were assigned to north-west, southwest, southcentral and northeast Pennsylvania, primarily for boating safety enforcement duties. In the past year, officers spent nearly 61,000 hours along Pennsylvania's waterways on Fish Law enforcement efforts, while committing 22,000 additional hours to Boating Law enforcement.

Waterways conservation officers have many responsibilities in addition to Fish and Boat Law enforcement. Investigation of water pollutions and stream disturbance cases, along with boating accident investigations, consume much of their time. In 1991, officers committed nearly 7,000 hours to investigating 423 separate pollution incidents or stream disturbances. Officers also spent over 7,600 hours assisting the Bureau of Fisheries with fish stocking and other resource assessment and management efforts.

Waterways conservation officers play an important role in educating the public about fish, boating and aquatic resource issues while serving as symbols of responsibility to our young fishermen and boaters. Officers spent nearly 8,600 hours on radio and TV presentations, sport and boating shows, government meetings, school programs, fishing schools, boating programs, and a great variety of other public meetings and events.

Support of the Fisheries Environmental Services Division required 3,400 hours of field effort, while assistance to the Pennsylvania Game Commission and other public agencies demanded 5,000 hours of effort.

The waterways conservation officers were given excellent support by 360 deputy waterways conservation officers who assist them during periods of heavy demand. The bulk of the deputies' time was spent in Fish Law enforcement (44,607 hours) and Boat Law enforcement (42,000 hours). The entire law enforcement program placed waterways conservation officers or deputies on field duty more than 322,000 hours, or 154 officer-days.

The presence of these officers helps create a sense of comfort for Pennsylvania's resource users. The knowledge that there are professional officers available who can deal with problems while helping to protect lives and our natural resources translates into confidence in the Commission and its mission. When the Commission is able to carry out its mission successfully, the public is rewarded with excellent fishing and boating opportunities.

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The covers

This issue's front cover shows the anticipation Pennsylvania anglers are feeling as next month's opening day nears. On the back cover, author Ernie Schwiebert hefts an excellent brown trout from Fishing Creek, Columbia County. If you can't wait for April's opening day, turn to pages 4 and 16 in this issue. Also scan your *Summary of Regulations and Laws 1992* beginning on page 15 for specially regulated waterways open to fishing now. If you're a member of a sportsmen's club, please see pages 20 and 31. Shad anglers will want to get set now with the latest fishing lowdown on page 7, and to eavesdrop on one of nature's most incredible sights, turn to page 10. The front cover was taken by Bob Garman. The back cover was photographed by Barry and Cathy Beck.

Old Leatherlips

by John W. McGonigle

Lying stealthily submerged like a phalanx of Roman legionnaires, suckers often excite a novice angler who approaches a stream. A disparaging remark quickly follows when the angler realizes that rather than trout, the fish are "just a bunch of suckers."

To a large group of anglers, though, the sucker provides an entirely new fishing dimension. Suckers give them the key to unlock the chains of cabin fever.

Even though suckers don't win beauty contests, suckers have their advocates. Chip Gibson, of West Chester, a longtime sucker fisherman, and Jack Roe of Exton, a more recent convert to the sport, have nothing but praise for sucker fishing and all it provides.

In a rare turnabout, it is Gibson, the younger man, who is mentor to Roe, who retired eight years ago. Roe fished before his retirement, but his interest and participation in angling soared as he sought things to fill the time void created by retirement.

Most advocates of sucker fishing wait until late February or March. But both Gibson and Roe start as soon as the leaves are off the trees in late fall. Roe especially likes January and February because, "once the water warms up, the bluegills drive you nuts," he says.

Although Roe has accidentally caught suckers while fishing a nymph for trout, both he and Gibson concur that worms are the only bait to use for suckers. "For large water," says Gibson, "we like nightcrawlers. For smaller streams, garden worms or red worms are fine."

The best time to fish for suckers, according to both partners, is after a rain that brings the water up some, but more importantly, the rain gives some color to the stream. "Nothing shuts off sucker fishing like clear water," Gibson says.

Roe is especially fond of fishing for suckers after a snow when a "melt" has started. He is the first to admit that it is as much fun to get out on a nice, sunny day as it is to catch suckers.

Both anglers prefer a six- to 6 1/2-foot medium-action spinning rod, preferably graphite to provide sensitivity. Their graphite rods are also stiff enough to deliver a firm hook set, which is necessary because of the sucker's tough mouth, accounting for Gibson's favorite name for the sucker, "old leatherlips."

To get the most from their graphite rods, both anglers spool up with a clear, limp, premium eight-pound-test line.

Hooks are long-shanked size 8 snelled Tru-Turns. Both Roe and Gibson swear that the offset hook alignment found on the Tru-Turn hooks aid immeasurably in setting the hook.

Because suckers are bottom feeders, it figures that the bait should be on the bottom and stationary. A 3/4-ounce to 1 1/2-ounce bank sinker tied to the end of the line keeps the bait on the bottom. The weight depends on the amount of water flow.

To complete the sucker rig, these anglers tie one snelled hook to the line just above the sinker, another about 18 or 24 inches above the first. The rig puts one hook on the bottom and the other slightly off the bottom. Says Roe of the upper hook, "Nightcrawlers have a scent. I think the suckers are feeding on the bottom, smell the upper worm, and go up to the upper hook." Both anglers agree that most suckers are hooked on the bottom hook, though. "Even so," says Gibson, "two hooks are traditional, so that's what we use."

Sucker fishing is a game of waiting and watching, with an emphasis on watching. Roe says, "You must concentrate on your rod tip or the sucker will have your bait."

One can rarely hold the rod and expect to be successful catching suckers. The rod is either placed in an elevated position in a forked stick, or laid on the ground. Either method keeps the fish from detecting movement from the angler, which immediately makes the sucker stop feeding on the bait.

Overcast days are best for sucker fishing because the clouds eliminate shadows and make it more difficult to see into the stream. Suckers are more secure from predators, including man, on cloudy days. "Cloudy days are best, but I go when I can, and a nice sunny day is awfully pleasant," says Roe.

Windy days make it more difficult to detect strikes. Laying the rod on the ground instead of putting it on a forked stick helps keep the line more stationary and easier to watch. Both men most often fish two rods, the maximum allowed.

"Don't strike the fish on the first nibble," advises Roe. He recommends pausing a few seconds and then setting the hook. Even after seven years of sucker fishing, Roe is often still too anxious and has a tendency to strike too quickly. He has developed a way to help overcome his reactionary shortcoming—he moves his stool back a short distance from his rods, thus forcing a slower rod pick-up and strike.

Gibson, on the other hand, sits close to his rods. He still pauses before striking, though, admitting, "timing is the key. I try to strike when the fish is there and the rod has a constant throbbing motion." He further cautions that suckers frequently "hit and quit, hit and quit. Wait until it's steady and then strike," he says.

Clothing

It is generally cold when sucker fishing, so both men stress the importance of wearing warm, comfortable clothing. "Keeping your feet warm is the key," says Roe. "Layering is the best way to dress." He thinks layering offers more flexibility to change as the weather changes.

Gibson likes a one-piece coverall for really cold weather. Neither man wears gloves. Instead, they keep their hands in their pockets. If it is especially cold, they use handwarmers.

On where to fish, Gibson says, "That's easy. Look for deep holes with still or barely moving waters."

Gibson has fished the Brandywine for suckers the most, usually the main branch, but he admits the two branches above their

When you look for sucker
action, check regulations
carefully. Many waterways
are closed to fishing until
April's opening day of
the trout season.
Check the Summary
of Fishing Regulations
and Laws 1992
for more details
on where to
fish for
suckers.



juncture offer many excellent spots for sucker fishing. The Brandywine is also Roe's primary stop for suckers.

Gibson offers advice that is pertinent to any fishing venture. "Make sure you have the landowner's permission to fish so you don't ruin things for the rest of us."

Much of the Brandywine is open, "but remember that approved trout water is closed after February 28, so that rules out the two branches above Route 30," Gibson says.

Table fare

Neither Gibson nor Roe keeps the catch, but there are those who enjoy eating suckers. During the cold months of January, February, March and April, the flesh of the sucker is firm, and many people find it tasty.

In his original home state of Michigan, Roe says that many locals

made good use of all the suckers they caught. They gutted the fish, removed the heads, tails and fins and ground the fish. Adding spices and seasonings, they formed a patty, breaded it and then deep-fried it, as one makes salmon patties.

Smoking is another method of preparing suckers. And with the various flavors of smoking chips available, suckers suit the tastes of many who favor using nature's harvest.

According to Gibson, fewer people fish for suckers these days, and he thinks that's unfortunate. "When I was young, the Brandywine along and above the Lenape Amusement Park was so crowded it was tough to find a spot if you arrived late," Gibson says.

Though there are fewer anglers pursuing suckers, there are still those like Roe coming into the sport. "I like trout and bluegill fishing better," says Roe, "but I sure do like my sucker fishing."

ANGLER

Sucker Fishing on Brandywine Creek

The Brandywine offers many miles of fishing access, and in addition to suckers it offers good trout and smallmouth bass fishing.

East Branch

From Glenmore on Route 282, the Brandywine is accessible at many locations all the way to Downingtown. Foot access is available on much of the same stretch along the Struble Trail, which starts in Downingtown.

From Downingtown, Route 322 runs adjacent to the Brandywine, with access along the way. Between West Chester and Marshallton, you can get to the creek along Route 162 and the bridge at Route 842 several miles south of West Chester.

Several hundred yards downstream from the Route 842 bridge is "the Forks," the juncture of the East and West branches. This spot is excellent.

West Branch

Hibernia County Park provides access to much of the West Branch. You can also gain access to the Brandywine at the bridge on Strasburg Road in Mortonville, at Embreeville County Park on Harvey's Bridge Road, at the bridge at Northbrook, and at the bridge on Route 842 at Wawaset.

Main Branch

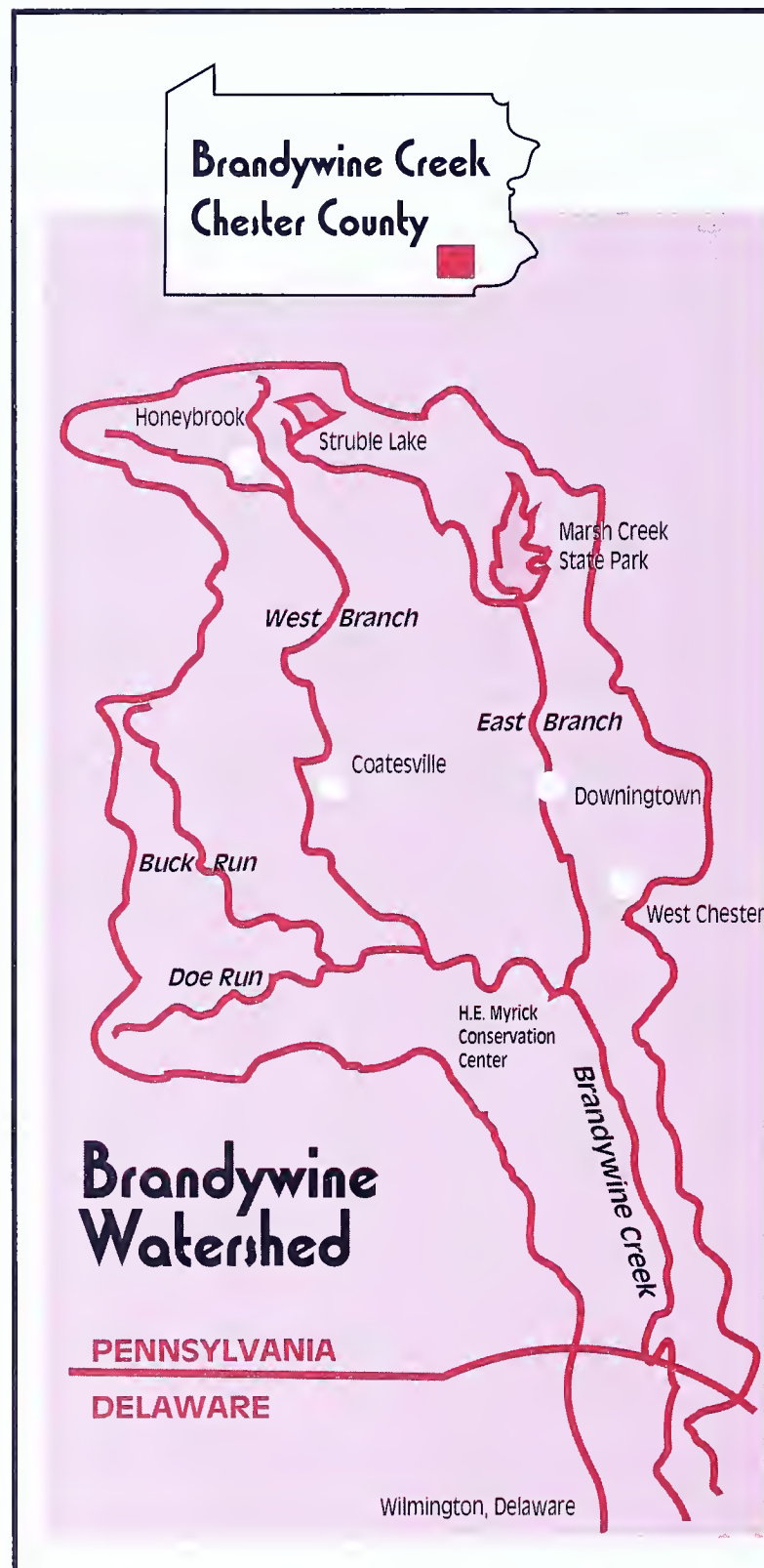
The two branches join a half-mile above the bridge at Route 52 at Lenape. You can get to the spot easily by walking a few hundred yards downstream on the East Branch from the bridge at Route 842.

Route 100 runs along much of the main branch from Lenape to Chadds Ford, with access at the bridge at Route 926 and Route 1.

Below Chadds Ford, Route 100 meets and turns away from the Brandywine numerous times. After several miles, the Brandywine flows into the state of Delaware.

Brandywine Creek Bait, Tackle, Information

Gordon's Sports Supply, Eagle, PA.
Lyndell Country Store, Lyndell, PA.
Rick's Sport Shop, Downingtown, PA.
Chip's Bait and Tackle, West Chester, PA.
Pete's Outdoor Store, Kennett Square, PA.



Hot New Shad Technique: Downrigging

*by Tom Fegely
photos by the author*

It took only 3 1/2 memorable hours for Ron Bauer to make his point. It wasn't that I was suspicious each time the Allentown angler phoned to keep me apprised of his shad fishing success on the Delaware River last spring. Nor that I doubted his word that a new way of luring American shad was "more productive than any other way of catching them." But Bauer wanted me to join him for an afternoon of—all things—downrigging for shad.

In my 20-plus years of bottom-bouncing, drifting, trolling, dead-sticking and shore-casting for the spring migrants that draw anglers from near and far to the Delaware, I'd never heard of anyone downrigging for the scrappy oceanic migrants.

"You downrig for salmon, trout and walleye in Lake Erie, not for shad," I teased during one of his frequent calls.

That made the Lehigh Valley transplant, who regularly downrigged for Lake Erie salmon and walleye during his years in Pittsburgh, all the more adamant about showing me the technique he claimed was drawing plenty of attention in Bucks County waters. That's where the earliest shad begin to nail darts, sometimes as early as mid-March. And it's where Bauer first tested his downrigging technique and a lure that's added a new twist to the old sport.

Not only do Bauer and his fishing buddy, Gary Conners, use downriggers for the abundant but sometimes elusive fish, but their terminal adornments are not the traditional shad darts—tiny, colored jigs that most anglers use.

Downrigging requires the use of the "Shad Flutter," a small, long-shanked, silver-backed, spoon-type lure embellished with fluorescent paint.

The wobbling lure, says Bauer, not only moves enticingly but maintains nearly the same depth as the downrigger weight—a critical factor in this new method for catching shad. A traditional lead dart may prove too heavy for use with the downriggers, which rely on precise presentation for success, although Bauer concedes that small darts may also do the trick.

Even though Bauer was at first close-mouthed about his new techniques, it didn't take long for his "old green boat" (a fiberglass craft purchased from the Herters' catalog 38 years ago) to draw the attention of shad anglers on the lower river. But it wasn't the 12-foot craft that brought stares from fellow boat-anglers. It was the number of fish he hauled into, and then released from, that "old green boat."

"Down at Lambertville (New Hope) Gary

and I had boats crowding all around us because we were catching fish and they weren't," Bauer chuckles. "One guy even offered me \$100 for our fishing spot."

But it wasn't only the "fishing spot" that was yielding success for Bauer and Conners. Indeed, as early as March 9, the pair caught four fish; at a time when most shad anglers are home painting their darts, checking their boat trailers or perhaps even ice fishing yet in the Poconos.

But Bauer and Conners were testing the shad waters—gloves, earmuffs, hot coffee, down coats and all. Even the guides on their rods had to be cleared of ice every few minutes. A few weeks later, still far from the late April-early May prime run of the nomadic fish, they boated and released 19 shad during a snow-storm.

Attribute it all to "getting down to where the fish swim," says Bauer. And to do that it takes downriggers.

Bauer said last year he hooked shad as deep as 20 feet early in the season and as shallow as four feet in late May and June.

"It works anytime," he advises. Here's how he does it.

The first order of business is cruising the area to be fished and locating the deepest spot—usually a channel—with a depthfinder. Images on the electronic locator show the bottom and the exact depths at which the shad may be migrating on a given day.

After anchoring, Bauer attaches the clips six feet above the flutters and submerges them at the precise spot the fish are moving, using the counter on each of his four downriggers as guides. On our mid-April outing to the Easton sector of the Delaware, where the Lehigh River joins forces with the stateline water, we located schooling shad at 13 feet, only two feet off the channel bottom. Beginning at 4:30 p.m. and fishing until dark, we boated 18 shad—17 bucks and a lone roe. No one else in our vicinity, about 30 people in boats and a few dozen shore anglers, came close to our success.

Then again, no one else was using downriggers. Following a newspaper story on his success using the "deep-lake methods," Bauer was invited to present a seminar to a full house at a Delaware River Shad Fishermen's Association meeting. Here's what he told the wide-eyed club.

First, Bauer says (as he proved on his late-winter outings), shad hit in water temperatures as low as 37 degrees "as long as the lure is presented properly.

"The key is in the presentation," Bauer emphasizes. "If shad are in the river, they will strike. Early (arriving) shad swim only





a few inches off the bottom of the channel and that's where you must keep the lure."

Second, Bauer says, the only way to maintain the proper depth is to use downriggers. Downrigging leaves little room for error. Not only must the downrigger weight and lure depth be pinpointed, but the reel's drag must be set properly to keep the hook from tearing out of the paper-mouthed fish when the strike triggers the downrigger's release.

Sensitive line clips must also be used. Bauer uses eight-pound test exclusively because it's sufficiently strong to keep from snapping when pulled from the release, yet it's light enough to maximize the ensuing fight.

Third, Bauer concedes that lightweight shad darts may be effective with downriggers, but he believes the flutter spoons more closely maintain the depths indicated on the depthfinder. Heavier lures shaped to cut through water rather than wobble in the currents ride deeper than desired.

Word of the new technique spread rapidly last spring. Anglers encountered difficulty in finding the flutter-spoons because only one Bucks County sporting goods store handled them in the early season, when word of their effectiveness initially spread. By late May and June other stores along or near the river also had supplies of the revolutionary offering.

According to Conners, a Doylestown manufacturer turned out 2,000 lures daily in early spring but couldn't keep up with the demand. Surely more stores will have them in stock this year as other manufacturers copy the product and some shad anglers fashion their own variations of the "Shad Flutter."

Chances are, downrigger sales will also go up this year along the Delaware. Because river depths seldom exceed 15 feet, hand-controlled units are sufficient. One of Bauer's downriggers, a home-made unit, was fashioned from an old saltwater trolling reel and 50-pound-test monofilament marked with depth indicators.

Why is Bauer so free to share his downrigging techniques? Often fishermen are as close-mouthed and mysterious about their "secret ways" as the fish they pursue.

"Why not?" he says. "If someone else can maximize their time on the water, so much the better. They're out here to catch fish and maybe this will give them another way to do it."

Bauer promotes and practices catch and release. In 1990 he and his companions brought more than 300 shad to the "old green boat" and last year they hooked and released many more when he perfected his downrigging ploy.

As he said he would, Bauer made me a believer. If you follow his unique downrigging instructions this year, you'll be a believer, too.

Watching Wood Frogs

by Marcia Bonta



Joe McDonald



Joe McDonald

Globular wood frog egg masses always have a higher temperature than the surrounding water. The black eggs absorb heat and the surrounding jelly acts as an egg insulator.

For a ringside seat at one of spring's most incredible events, head for your favorite pond on the first warm day in late March. The pond you choose needn't be a large one because the smaller the pond, the easier it is to watch the courtship of wood frogs, *Rana sylvatica*, the "frog with the robber's mask."

That "mask," a dark patch extending from the eyes, lends a rakish air to the handsome frogs with their long legs and variable body color, which ranges from beige to dark brown. Most striking of all are the hot-pink varieties whose "masks" are blood red rather than the usual dark brown. Looking more like residents of some exotic tropical country than of the austere northern climes, the rosy wood frogs are invariably females.

I have been watching wood frogs in a tiny "pond" that was created 15 years ago by a testhole digger. The idea was to see whether the soggy edge of our mountaintop field was suitable for a real pond. Alas, it was not, and we were left with a nine-foot-deep, six-foot-wide hole in the ground that filled with water from nearby springs. It is there, late each March and early April, where I watch the cavortings of the widest-ranging frog in North America.

From north of the tree line in Alaska to the southern Appalachians in Georgia, wood frogs emerge from their hibernation in logs and stumps, beneath stones and old boards, or, in the grasslands farther north and west, from underneath the earth. Only the permafrost of the tundra prevents their extending their range

even farther north. As it is, they can tolerate extremely low temperatures, adjusting their body size according to the climate. The largest wood frogs (up to 3 1/4 inches) have been found in the southern Appalachians, the smallest (1 3/8 inches) in the north-west territories of Canada.

Explosive breeders

Wood frogs are explosive breeders, taking from a few weeks to a few days to do their courting, mating and egg-laying. The globular egg masses they produce always have a temperature higher than the surrounding water because of the thermal qualities of their black eggs. They absorb radiation and the surrounding jelly acts as an egg insulator. So no matter how often the pond water may re-freeze after the eggs are laid, they are rarely affected. And despite low temperatures, they develop quickly, from eggs to tadpoles, to tiny, land-bound frogs in less than three months. Such frenetic growth is necessary for the young to beat the odds that the small ponds will not dry up before they are mature. Their rapid growth is also why wood frogs can live in the brief summer of the far north.

One of spring's special privileges is to watch them while a March wind ruffles the pond's surface and the first strong rays of the sun warm your back. It is best to have all the time in the world and infinite patience. Then you can walk boldly up to the edge of the pond where the frogs are calling, swimming, mating and laying their eggs, and you can sit down.

Silent scrutiny

The frogs, of course, will immediately sink out of sight, and a primordial silence will settle over the pond. But eventually, if you remain absolutely still, a froggy head will cautiously surface, its golden eyes trained unwaveringly on you. That is not the time to scratch your ear, move your cramped legs or push your glasses up your nose, because once you pass muster with that first frog, heads will begin emerging from all directions. Inexorably you receive the silent scrutiny of what, even in our tiny pond, has been as many as 100 wood frogs.

This cautious emergence can last anywhere from 10 minutes to an hour, and in that period only your eyes should move. Usually I entertain myself by continually counting the emergents and when my glasses slip down almost to my mouth, I can get away with an extremely slow-motion movement to push them back up.

Why go to such lengths to watch wood frogs, the uninitiated might ask? Because once they forget you are there you can witness behavior that few of nature's creatures allow us to see. First one, then another, begin a duck-like quacking and within minutes your ears ring from the cacophonous hubbub. This noise is meant to attract females.

If you watch wood frogs only casually, the swimming, calling males may be all you see. For serious watchers like me, steady observations over the years bring greater rewards.

I have witnessed one event only once, and that was on an overcast, 50-degree March day, four days after I had heard the first male frogs calling. As usual, all the frogs dived into the pond as I approached. But then I spotted a mated pair still above water. The female was in the process of emitting eggs—the first to be laid in the pond that spring. Cautiously I sat down and peered closely at the beautiful, salmon-pink female, who was tightly clasped by the dark-brown male lying on her back.

The eggs she emitted looked like tiny black-and-white seeds as they emerged from her oviducts. The male, at the same time, emitted milt, a sperm-containing fluid. This close encounter al-

lowed me to note the slender, webbed toes on the back feet of the female and the larger, swollen toes of the male, which he used to grip her.

The egg-laying was over in half-an-hour and the mass of eggs was left attached to a submerged blade of grass. The male slid off the female's back and lay on his stomach in the water, his sides heaving from exertion, while she swam down into the murky depths of the shallow pond. Later I saw her slip out of the water and leap away toward the woods. Her duty toward her future offspring was finished for the year.

Over the next several days that egg clump massed together with 15 other clumps laid by females I did not see. Each clump contained at least 1,000 eggs, so the potential for little wood frogs is enormous. But it is only potential. Although the pond becomes a thick soup of tadpoles several weeks later, long after the parents have returned to their permanent woodland homes, predatory water bugs, spring peepers and salamanders, as well as their own cannibalism, quickly cut down the population.

Advantage

Lately, though, scientists have discovered that wood frogs have an advantage over their salamander predators. According to researcher Joseph Freda, who studies the effects of acid rain on frogs and salamanders in the Barrens near State College, wood frogs can thrive even in water with a pH of 3.5, but the Jefferson and spotted salamanders that he found there could not reproduce when the pH descended to 4.

So even though acid rain is bad news for salamanders and most frogs (the leopard frog is one example), it does not affect the highly adaptable wood frogs. My own observations confirm this idea, because during the early years of my watching I saw an occasional salamander in the pond, but for the last several years there has been none.

As a long-time wood frog watcher I have had other questions about what I see answered, such as why the males hug every frog that jumps into the pond even if, to my eyes, that frog is obviously a male. Apparently they can tell the sex of another frog only by this trial embrace. They also have definite peak activity periods, performing best in mid-morning and again in late afternoon on nice days. But on humid, overcast days they are also active during noon and early afternoon hours. Rain is particularly stimulating, and I suspect it is then when most of the eggs are laid.

Wood frogs have a lifespan of three to five years, and they return to their home areas to court, mate and lay their eggs. Undoubtedly many of the wood frogs I have watched over the years have been repeaters. But the brilliant-pink female that landed exhausted on the bank beside me last spring was a definite newcomer. She looked as if she were dead and even when I stroked her back, she did not move, worn out from her ordeal of egg-laying. I tried an experiment and put her back into the pond to see if she would attract any attention. Not one of the calling frogs responded. In some indefinable way, even without that trial hug, they knew she was now useless to them.

Hurriedly she jumped back out of the pond, her pogostick-like leaps taking her rapidly off to spend the spring and summer hunting amid the ferns and partridge berries for worms, bugs and snails. The chances of my seeing her or any other wood frog until next spring were slight, because only when wood frogs get together in ponds and puddles and sing in spring do they briefly relinquish their shy ways to ensure their immortality for another year.

The Spruce Matuka



by Chauncy K. Lively
photos by the author

For many years fly tiers have used dace minnows as favorite prototypes in dressing streamer fly and bucktail patterns. There is ample justification because dace are common in many streams and they are often a significant part of the trout's diet. Several dace species are found in various parts of the country.

Most dace have a more or less distinct median band, with which most anglers are familiar. The minnow's median band probably gave rise to the use of badger hackles in certain streamer fly patterns. The Spruce is one such example.

The Spruce streamer has been around for a long time, although it is undoubtedly better known in western states than in the East. Likewise, the Matuka-style streamer had been in use for many years in New Zealand before it finally arrived on our shores. Its acceptance in the United States was instantaneous and it wasn't long before our fly tiers were either dressing the New Zealand patterns or adapting the style to American patterns. The marriage of the Spruce to the Matuka was not only logical—it was probably inevitable.

Many insist that the Matuka style is an improvement over the standard method of dressing streamers, with two main advantages. First, winding the tinsel ribbing



1 Clamp a hook in your vise and tie in the thread at the mid-shank. Tie in a strand each of floss and tinsel at the mid-shank. Then lay both along the top of the shank and wrap them over the thread to the bend. Wind the thread forward to the mid-shank. Select four strands of peacock herl and tie in their butts.



2 Wrap floss forward to form a tapered body ending in the herl tie-in. Hold the herl at a right angle to the hook and spiral-wrap it with the thread for a length of about four inches. Then wind the herl and thread together to form the thorax. Trim the excess herl. Prepare the badger hackle wing (see text) and bind the stems securely behind the eye. Trim the excess butts.



3 Wrap the tinsel forward, binding the wing to the body in spaced turns. Tie off the tinsel in front of the wing and trim the excess.

through the wing fibers tends to force the fibers into a more upright posture, giving the wing a broader aspect than those of standard streamers whose wing fibers tend to lie back when wet. Secondly, binding the wing to the top of the body in spaced intervals prevents the wing from fouling the bend of the hook, an occasional, troublesome fault of hackle feather wings secured only at the fore end of the hook.

The wing is roughly twice as long as the hook and the free portion overhanging the bend is half the overall length. Some tiers prefer a shorter afterwing, but I think the longer extension provides a more minnow-like action when the fly is twitched as it is retrieved.

Four large hackles are used in the wing and they may be taken from either a cape or a saddle. To take advantage of the natural curvature of hackle, choose two from the right side of the cape of saddle and two from the left. Pair them with glossy sides out and the curve of the dull sides facing inside. Determine the wing length by measuring it alongside the hook. Then strip off all the excess fibers from the butt end. Again, hold the wing in position over the hook and strip off the fibers under the hackle ribs for a length equal to the shank length.

The Matuka style of dressing calls for

securing the fore end of the wing behind the eye after the body is dressed. Then the tinsel ribbing is wound through the hackle fibers and around the body in spaced turns. As each turn is made it is advisable to tug gently on the afterwing to ensure that all slack in the hackle ribs is drawn out.

Many tiers clamp the hackle pliers on the end of the ribbing tinsel. This provides enough weight to let the ribbing hang in place after each turn while the tier parts the hackle fibers in preparation for the next turn. In this manner the turns can be precisely spaced without binding down wayward fibers.

Sometimes, if you use stiff hackles, the springiness of the fibers makes them reluctant to part distinctly. When this occurs try wetting your fingertips and dampening the fibers to make them more manageable. After they dry they will return to their original posture.

I tie the Spruce Matuka on 4X long streamer hooks in sizes 6 to 10. If you want to weight the fly, first bind a doubled strand of lead wire lengthwise under the shank in the area to be covered by the peacock herl thorax. This type of weighting lets the fly swim in an upright position and dip nose-down between twitches when retrieved.

I have seen anglers retrieve streamers so

rapidly that it appeared they were trying to snatch them away from any trout that had the temerity to give chase. Neophyte fly anglers are often guilty of this practice. Unless trout are actively foraging for prey, they are generally reluctant to risk leaving their cover to pursue quarry they probably can't catch. Slowing the pace and allowing longer pauses between twitches is generally the better tactic. On larger streams it is often effective to cast quartering upstream and allow the streamer to drift like a nymph, mending line as needed and imparting subtle twitches now and then. The angler who can make a streamer behave like an injured minnow, easy for a trout to catch, will most likely succeed.

Pennsylvania
Angler

Dressing: Spruce Matuka

Hook: 4X long
(Mustad 9672 or equivalent).
Thread: 3/0 black monocord.
Ribbing: Medium silver oval tinsel.
Body: Red floss and peacock herl.
Wing: Four matched badger hackle feathers.
Hackle: Badger, matching wing.



4 Select a badger hackle with fibers twice as long as the hook gape. Tie it in with the glossy side toward the eye.



5 Wind the hackle three turns and tie it off. Trim the excess hackle tip. Wrap a neat head, whip finish and apply head lacquer.

Small-Boat Navigation *by Bill Clede*

The day dawned dank and dreary, to paraphrase Poe. You know, just the sort of day when Pennsylvania bass love to bite. A mist, almost rain, made the hooded slicker necessary. It was just enough to break the nip in the air. The moisture-laden air meeting the cooler water added ground fog to an already foggy dew. But with the changing seasons, I expected the fish to be active—and I'd wanted to fish this lake for years.

It wasn't that bad a day, but what followed could have made it a catastrophe.

It's not important who my fishing partner was or where we were. Because he'd fished this lake before, he'd rather remain anonymous. What's important is the lesson he taught me, something too few fishermen consider when they head out onto a lake.

We met at the access at the southeast corner of the lake. As the haze brightened, we stowed our tackle in the boat while it was still on the trailer. Besides the usual tackle box, rod and reel, and thermos of coffee, I added a few other items—a lake hydrographic map and an old pocket compass I've had for years, one of those with the compass set into a clear plastic rectangle. The map helps you find underwater structure. The compass helps you find your way.

"You won't need your map and compass," my friend bragged. "I know this lake like my own backyard."

"They help me to visualize things." I excused their presence.

Knowing the lake is fine when you can see across to the far shore. But with the weather, the far shore wasn't any too visible as it was, and things got worse.

He knew the hotspots, all right. I must admit we didn't think much about the weather as the fish attacked our topwater plugs like kids after peanut butter sandwiches. I even tried some old popping plugs that provoked aggression, once I settled down enough to fish them slowly.

We'd worked our way around to the west side of the lake, I think. There wasn't even a hazy sun to give a sense of direction.

"There's another spot I want to show you, at the upper end of the lake," he said. But when he pointed, only a veil of mist lay in that direction. I looked back toward where I thought the launch ramp was and the visibility was no better.

"We'll follow this shoreline north and we'll get there."

The hint of darker haze marking the tree-lined west shore kept us just far enough offshore to avoid rocks. We almost grounded only once, on a point of land that jutted out from a fairly uniform shoreline. At least, it told my friend where we were.

"This is a good spot to cast from shore at certain times of the year," he said. The landmark told me nothing, not without the map.

I tried to be discreet as I unfolded the map and tucked one edge under the tackle box. From that point, it would be a straight shot across the lake to reach the ramp. We continued up the shoreline.

"The water shallows up at this end of the lake, so watch for snags," my friend warned. I slowed the boat. He pointed to a dark spot just visible in the haze.

"Get over around that rock and let's just drift." This favorite spot of his was as productive as the others and the fish demanded our attention. We must have caught and released two dozen bass

and a catalog of other species before my friend commented, "Do you notice more of a chill in the air?"

No fisherman feels cold when the fish are biting, but now that he mentioned it... "The weather report this morning said something about a front moving through," I said. "Think it's time to head back?"

He swiveled his gaze all around and frowned. We could see nothing but fog in any direction. He appeared confused, and I for darned sure was. Only the isolated rock barely breaking the surface identified our position.

"Got any good recipes for crow?" he asked. "I'm glad you brought that map and compass."

Reduced visibility

Having been a licensed motorboat captain since 1946, I've learned many lessons about the tricks reduced visibility can play. Even on bodies of water where landmarks, aids to navigation and the far shore are well within normal view, restricted visibility can confuse you. You can't be sure if you're far enough off to miss the rocks, or if that blob ahead is a snag or another adventuresome angler.

We were several miles from where we needed to go, with no indication of direction, and the rocky shallows along the east shore were known to be unforgiving to others who'd taken a chance.

Looking at the map, my friend pointed out the places to avoid. With the lake's shape, like a crooked neck squash, it would be a dog leg trip back. We could hug the west shore up at the north end to get us past the worst of the underwater rocks.

Using the De-Liar ruler as a straight edge, I drew a line from the rock, where we knew we were, to a point on the west shore where we'd clear the obstacles between. Then I drew another line from a point about 50 yards off the west shore southerly to the tip of that point of land we'd passed earlier, and then one more line straight across the lake to the launch ramp. My friend agreed that was the safest, most direct route—under the circumstances.

Even without parallel rules or protractor, you can lay the edge of that compass alongside the north arrow and orient the chart so the arrow and compass needle point in the same direction. But use the short arrow. That's the one that points to magnetic north. With the chart oriented to magnetic north, shift the compass to the line you drew and read the direction. That's our first course, roughly. It would take us safely to where we could see the west shore.

On an old boat of mine with a steering wheel up front, the foredeck had a raised center plank. It was handy to orient the compass with the heading of the boat. This boat had no foredeck and you ran this outboard from the rear. I set the tackle box amidships and oriented it straight fore and aft as best I could by eyeball. Then I put the compass on it lined up with the line of the split top.

"Close enough," I said with a grin as I started the outboard.

Before we run aground

Math never was one of my strong points and I didn't know our exact speed. It was "slow." So I didn't bother to calculate how long it would take to reach the west shore. Trees were high enough there to reach above the densest part of the fog. We'd see them before we ran aground. Sure enough, we did.



Map source list

Charts of navigable waters are available at some marine supply and sporting goods stores. The spiral-bound Small Boat Charts are a particularly handy size. Charts of inland lakes aren't so easy to find. You might find one at a store in the area of the lake you want to fish. The Fish Commission can send you a list of sources for maps of many area waterways. The Commission doesn't sell these maps—it only lists map sources. With requests for the map guidesheet called *Maps Useful to Pennsylvania Anglers and Boaters*, send a self-addressed, stamped business-size envelope to: Publications Section, Dept. F, Pennsylvania Fish & Boat Commission, P.O. Box 1673, Harrisburg PA 17105-1673.

"Now we have a slight problem," I explained. "If we drift too far east and miss that point we're using for a landmark, we'll run down open water until we reach the rocks at the south end of the lake. To play it safe, let's steer just west of where the tip of the point is so we'll run into the point for sure. That'll keep us where we can just see the west shore off to the right."

"Sounds like a good idea to me," my friend agreed. "At least we ain't lost."

We skirted down the west shore, and before long, the water became shallow. We were getting close to the point. Then we could see it. I moved out to the tip and stopped.

"Now we've got the widest part of the lake to traverse, so let's be a bit more accurate in our navigation," I suggested.

The fish ruler measured the course line to be 1.5 miles from the tip of that point to the access. Well, it really read inches, but comparing that with the distance scale on your map, you can convert it. I guessed our speed to be a brisk walking pace, perhaps three knots. Couldn't chance running into something. Distance divided by rate equals time. My pocket calculator said 1.5 divided by 3 equals .5. So multiply by 60 to get minutes and it said 30. Close enough.

"Got to be a little more accurate in our steering, too," I said. "Thank goodness it's not windy. That would require a course compensation, depending on the wind speed." Actually, at that relatively short distance, even at our slow speed, the course difference would be small.

"This morning I noticed there are boats anchored out just north of the ramp area and the chart shows rocks to the south. If I fudge a bit, it'll be to the north, so watch for boats on their moorings when we get close."

We talked about the day's fishing and the variety of lures that had produced best. But I kept one eye on the compass, and the other on my watch. The fog was persistent, still about 50 yards visibility, so I resisted the temptation to speed up and shorten the trip. At about 20 minutes out, we both started paying closer attention to what might lay ahead. My friend sighted the first boat 25 minutes after leaving the tip of the point of land.

"You were five minutes off," he chided.

"Well, not really," I responded with a grin. "Remember, I measured all the way in to the launch ramp."

"Close enough," he said.

"When you're on a boat designed for big water, you have a compass, navigation gear, perhaps even Loran C, but as long as you have a map that shows north and a distance scale, and a pocket compass, you can make do with what else you normally carry on a fishing trip," I explained. "As long as we get home without ramming the boat on a rock or traveling in circles, we can eat that one bass we kept."







Southeast/Southcentral Pennsylvania Special-Regulation Waters

by Bob D'Angelo

The swift current gouged a three-foot deep channel between a large, almost completely submerged boulder and the vertical creek bank. Overhanging brush and the steep grade of the bank itself meant that any cast from the opposite bank was impossible—just the place for a wary trout to rest, most likely right against the far side of the rock base out of the swift current. I had a narrow space in which to place the Elk Hair Caddis, and even if I settled the fly like a wisp of down in the narrow channel, the offering would float drag-free only a short distance before the current would whisk it away. On the third cast I put the fly in exactly the right spot and instantly the flash of a trout inhaling the fly glistened. No need to set the hook. The trout took advantage of the swift current in the ensuing fight, but it finally surrendered to the net. I admired the 14-inch brownie, and then I released it. With no other fishermen in sight, I moved upstream to fish the tail of a large pool.

I wasn't fishing a secluded wilderness stream in the Keystone State's northcentral

region, and I wasn't fishing during the dog days of summer, when most other anglers concentrate on warmwater species. It was the last week in April, and even though nearby streams swarmed with bait fishermen, I cast my flies on a fly-fishing-only project in the heavily populated southeastern part of the state.

Who but the fly fishermen who fish these streams often would believe there is quality trout fishing sandwiched between Philadelphia and Harrisburg? Despite the ever-continuing urbanization of this area, there are several special-regulation waters that provide fly fishing enthusiasts with many hours of recreation. Here's a rundown of 13 fly fishing special-regulation waters in southeast and southcentral Pennsylvania.

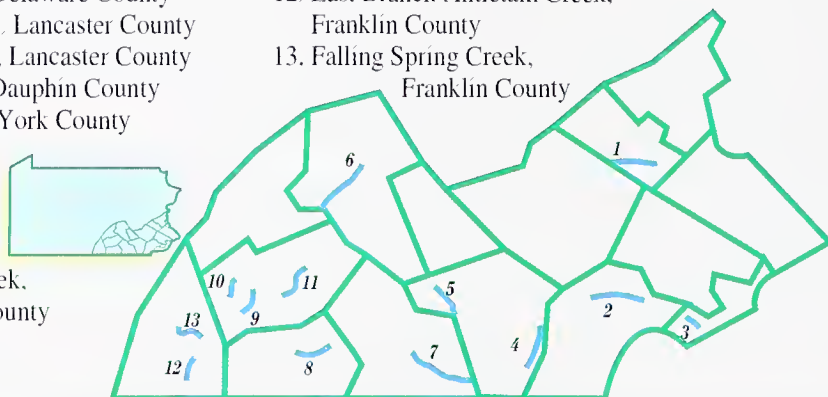
Lehigh County's Little Lehigh Creek contains a 1 1/2-mile fly-fishing-only project beginning at the Lauderslager's Mill Dam upstream to Township Road 508. This section is just southwest of Allentown and can be reached from Route 29. There is also a one-mile no-harvest, fly-fishing-only



Jeff Muthollen

Don Bastian

1. Little Lehigh Creek, Lehigh County
2. French Creek, Chester County
3. Ridley Creek, Delaware County
4. Octoraro Creek, Lancaster County
5. Donegal Creek, Lancaster County
6. Clarks Creek, Dauphin County
7. Muddy Creek, York County
8. Conewago Creek, Adams County
9. Big Spring Creek, Cumberland County
10. Green Spring Creek, Cumberland County
11. Letort Spring Run, Cumberland County
12. East Branch Antietam Creek, Franklin County
13. Falling Spring Creek, Franklin County



Regulations

On the fly-fishing-only projects, three trout of nine inches or better may be creel from the opening day of the regular trout season until the last day of February. On the delayed-harvest, fly-fishing-only projects, three trout of nine inches or over may be creel from June 15 to the last day of February.

Be sure to read the *Summary of Fishing Regulations and Laws 1992*, supplied with your fishing license. Note posted regulations at project sites.—BDA.

stretch located in Little Lehigh City Park from Hatchery Road downstream to the 24th Street Bridge. The stream contains many springs that help keep the water cool throughout the summer. The Little Lehigh is considered a class B stream and harbors some native brown trout. Early in the season the Blue Olive Dun in size 20 is effective. The Yellow Drake appears in mid-summer.

Approximately 40 miles west of Philadelphia, French Creek in Chester County provides some productive fishing on its delayed-harvest, fly-fishing-only section. This nearly one-mile stretch of water begins at the dam at Camp Sleepy Hollow and extends downstream to Hollow Road. Access to French Creek is from routes 23 and 345. The caddis fly is a staple pattern for fishing French Creek.

Nearer to Philadelphia, within 25 miles, Ridley Creek in Delaware County has more than a half-mile of delayed-harvest, fly-fishing-only water from the falls in Ridley Creek State Park downstream to the mouth of Dismal Run. Ridley Creek is located west of Media off U.S. Route 1. Knowlton Road and Ridley Creek Road run adjacent to the stream. With Ridley State Park located at its upper end, the future of this stream looks bright.

Lancaster County

Moving closer to Harrisburg, Lancaster County contains two delayed-harvest, fly-fishing-only waters. A two-mile section on Octoraro Creek begins below Route 472 and continues downstream to the second unnamed tributary below Route 2010. This small, scenic stream runs adjacent to the state game lands and can be reached by way

of U.S. Route 1 and Route 272 south of Lancaster.

Donegal Creek, 10 miles west of the city of Lancaster and near the town of Marietta, has 2 1/2 miles of delayed-harvest, fly-fishing-only waters from 275 yards below Route 772 downstream to Township Road 334. Donegal Creek stays cool through much of the summer, making it a productive delayed-harvest stream. The special-regulation area has some large shade trees on its banks that help to keep it cool. The stream has an excellent Trico hatch in late summer.

Dauphin County

My favorite special regulation stream in the southeast region flows 10 miles from the city of Harrisburg. Clarks Creek in Dauphin County provides fly fishing opportunities in scenic surroundings. The



PA Fish & Boat Commission photo

stream reminds me of a trout stream in the northcentral region. Almost two miles of delayed-harvest, fly-fishing-only water begins at the state game lands 211 parking area on Route 325, near the rifle range, downstream to the Game Commission access road at the Iron Furnace. Dehart Reservoir, upstream from the special regulation section, provides Clarks Creek with cool water throughout much of the summer.

The March Brown is a good early season pattern, and when the leafroller caterpillar is on the water later in the season, an imitation of this insect is productive.

The future of Clarks Creek remains bright and will provide good fly fishing for years to come because of its location within state-owned property.

York County

Muddy Creek in southeastern York County contains my favorite fly-fishing-only project in the southcentral region. I spend much of my time on this stream and catch plenty of trout. The fly-fishing-only section begins just upstream from the bridge on Route 2032 at Bridgeton, and continues upstream for two miles, ending at the hamlet of Bruce. Muddy Creek averages 42 feet wide and contains some fast water with deep pools. The stream threads through hemlock-covered hills. The stream provides some solitude, especially because it's located near York, and even Baltimore is in easy driving distance. It's common to see at least a few vehicles with Maryland plates parked along the gravel road that runs parallel to Muddy Creek.

Anglers fishing the lower section near Bridgeton need to make sure they keep their vehicles parked on the side of the gravel road and not on the grass adjacent to the stream. The landowner becomes understandably upset if this is not the case.

Nymphs work well on Muddy Creek. Last season, 67 percent of the trout I caught on the stream were taken with nymphs. Working stonefly nymphs in the fast riffles, I fooled many nice brown trout by bouncing the weighted nymph on the bottom downstream, ending the drift by raising the imitation to the surface. Trout find a rising nymph hard to resist. I experience the most success fishing the Elk Hair Caddis on the surface during May. Later in the summer the White Mayfly and Trico are good patterns.

Muddy Creek is not without its problems. Siltation is a major problem, and even after a brief shower the stream becomes coffee-colored and difficult to fish. Muddy Creek

becomes too warm during the summer months, and as early as the last week in May this past season the water temperature reached 78 degrees. The trout seek the cooler water where springs appear and the deeper holes. Concentrate your fishing efforts in these areas. Despite its problems, the fly-fishing-only project on Muddy Creek provides some of the best trout fishing in York County.

Adams County

Moving west into Adams County, the fly-fishing-only project on Conewago Creek is approximately 1 1/2 miles south of the borough of Biglerville. The section is slightly over one mile and extends from Route 34 upstream to a boundary wire downstream of the bridge on Township Road 340. The stream flows through a canopy of tall hardwoods that helps keep water temperature at an acceptable level even when air temperatures are warm. I have fished here when the thermometer read in the high 80s and stream temperatures registered 65 degrees.

Cumberland County

The southcentral region of Pennsylvania contains special-regulation fly-fishing waters that rival any in the state. Several of these projects are located on the limestone streams of the southcentral region and are on a par with some of the best trout waters in the country. As a special attraction, when fishing some of these limestone streams you'll float your fly over wild trout.

Every dedicated fly fisherman should make at least one trip to Big Spring Creek near Newville, Cumberland County. It's a challenging stream because the wild trout are wary, but it is one of the most beautiful streams you will ever fish. This limestone stream contains clear water that maintains a year-round temperature mostly in the 50- to 60-degree range.

The Fish & Boat Commission has restored the native brook trout population in the upper portion of this stream from the headwaters down to the old Thomas Dam site. A barrier here separates the brookies from the wild brown and rainbow trout.

When fly fishing Big Spring, use long leaders with light tippets. I've enjoyed the most success using a small cress bug imitation fished on the bottom in the dense aquatic weed growth.

Big Spring Creek can be reached by taking the Newville exit, Route 223, off Interstate 81 south. Take U.S. Route 11 south and watch for the Commission sign leading to the stream. There is a one-mile trophy-trout section from 100 feet below the source of

Big Spring downstream to the Strohm Dam. Two trout of 15 or more inches long may be taken daily. Fly-fishing-only regulations apply. Barbed hooks are permitted.

A few miles from Big Spring Creek, also in Cumberland County, is Green Spring Creek. This stream is more narrow than Big Spring, but it contains some nice pools. One angler I know who frequents the stream caught two holdover brown trout of 20 and 21 inches on the fly-fishing-only section. The one-mile fly-fishing-only area of the stream, located off Route 641 west of Newville, begins at the mouth upstream to a spot near the Bulls Head Branch.

Another Cumberland County special-regulation water that warrants attention is the no-harvest fly-fishing-only project on the well-known Letort Spring Run. The 1 1/2-mile project begins 300 yards above the bridge on Township Route 481 downstream to the Reading Railroad Bridge at the southern edge of Letort Spring Park. This limestone stream is known for its wild trout, mostly browns. The Letort is a narrow stream thick with watercress and other aquatic vegetation growth. As with Big Spring, cress bug and scud imitations work well here. Terrestrials are your best patterns for working the surface. The stream is located just south of Carlisle.

Franklin County

Franklin County contains two special-regulation waters. You can find a one-mile fly-fishing-only project on the East Branch of Antietam Creek from Route 16 downstream to Township Road 365. This stream is three miles east of Waynesboro and is well stocked with trout.

Another southcentral limestone wild trout water located near Chambersburg is Falling Spring. A 2 1/2-mile no-harvest, fly-fishing-only section runs from near Township Road 544 downstream to a wire fence crossing the Robert E. Gabler farm, close to Interstate 81. Falling Spring is noted for its beautiful stream-bred rainbows.

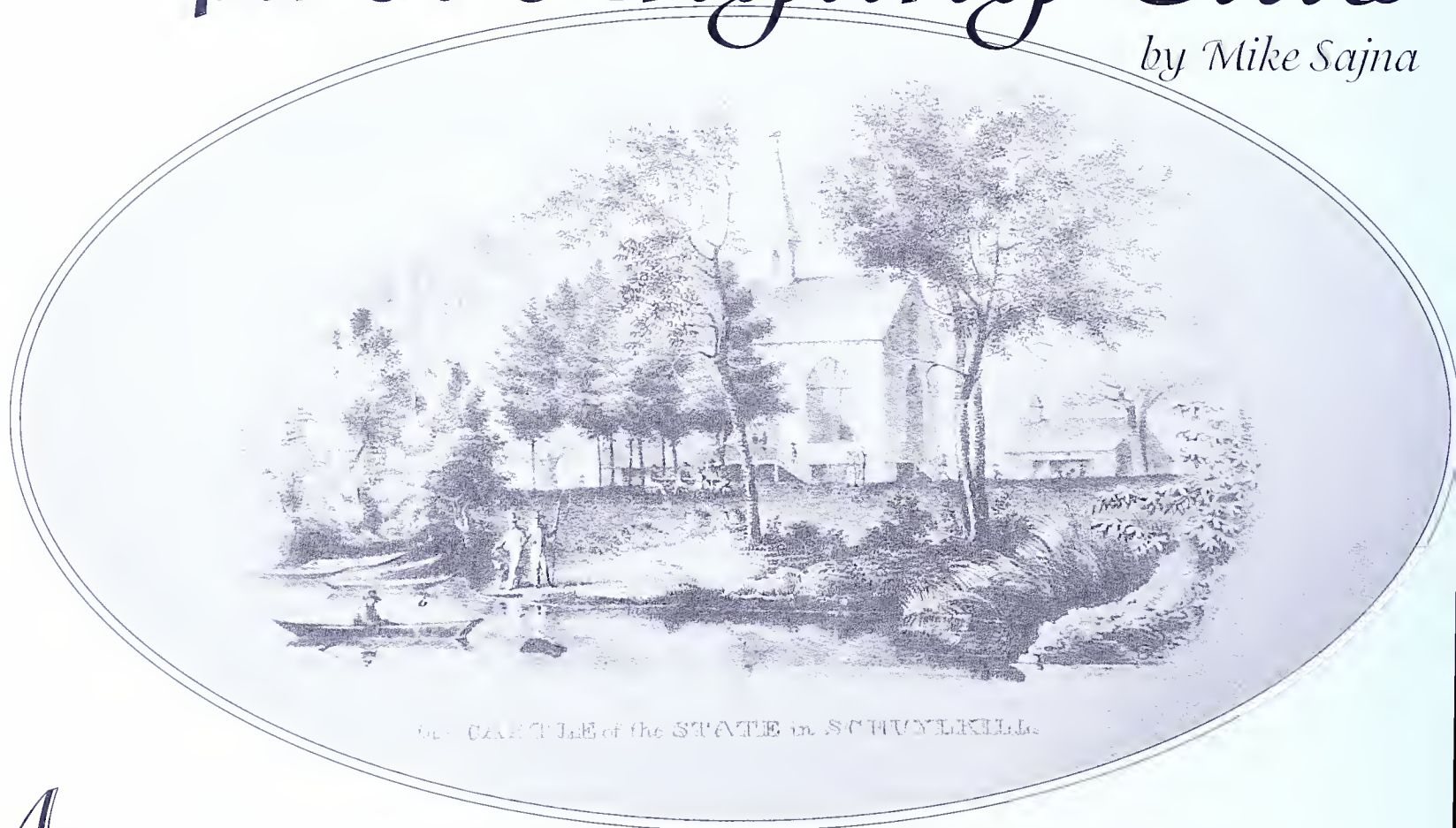
The Sulpher hatch is important from April through June, with Trico patterns fished on fine tippets working well later in the year.

The special-regulation fly-fishing-only waters provide anglers with elbow room, even on opening day and weekends. These projects hold trout well into the summer and often all year.

The southeast and southcentral regions provide the fly-fishing enthusiast with many varied opportunities to fish for wild and stocked trout. See you on the stream!

The New World's First Angling Club

by Mike Sajna



At the beginning, Philadelphia was a metropolis of some 10,000 souls and Benjamin Franklin was only 25 years old. The Delaware River off Front Street teemed with what seemed an endless cornucopia of shad, sturgeon, rock bass and herring. The Delaware harbored a dozen other species that most of the colonists, who followed William Penn across the Atlantic, had no idea existed.

Despite such a pleasant image, life in the city carried with it certain pressures, like epidemics of smallpox and typhoid, outlandish rises in the price of salt, essential to preserve meat, and streets where raw sewage flowed. To seek relief from such pressures, a group of prominent Philadelphians on May 1, 1732, fled to the banks of the Schuylkill River, a near-pristine waterway where Indians still occasionally appeared. There they swore allegiance as the Schuylkill Fishing Company, the first angling club in the New World.

The group was originally named The Schuylkill Fishing Company of the Colony in Schuylkill, apparently as a whimsical comment on the jurisdiction. The club first met on benches erected in the woods on the estate of William Warner, on the west bank of the river near the place where the Girard Avenue Bridge now stands. Its first "Colonial Hall" was built on the site in 1748.

Like a real colony, the club was established with a governor, six assemblymen, a sheriff, treasurer, secretary and coroner. Its first "governor" was Thomas Stretch, a director of the Hand-in-Hand Insurance Company, who was born in England in 1695 and who came to Philadelphia with his father in 1702. Other early members included Robert Wharton, who served as mayor of Philadelphia from 1798 to 1824. His family name is now attached to the Wharton School of Business at the University of Pennsylvania. Another early member was the attorney John Dickinson, whose name now belongs to Dickinson College, in Carlisle.

Although the colony was founded as a fishing club, its gatherings actually were more banquets in which great quantities of beef, pork, cheese, and in the ancient and still grand tradition of many fishing clubs, tobacco and spirits were consumed. Out of 6 pounds, 18 shillings and 8 pence spent on a 1748 banquet, for example, one pound, 20 shillings went for wine and spirits, and 2 shillings, 6 pence for pipes and tobacco, by far the most of any items in the budget.

Nevertheless, the club did depend to a large extent on the angling skills of its members to fill out its banquet menus, and the Schuylkill River of the 18th and early 19th century was a generous provider. "The year 1812 was productive to the gentlemen, fond of the amusements on the water," William Milnor noted in his 1830 history of the club. "Frequently five or six persons would take and return from thirty to seventy dozen choice fish, principally the esteemed white perch." Members often reported landing three to five perch of "remarkable size" on a single cast and occasionally they even caught trout.

"At the March meeting in 1789," Milnor wrote, "it was recorded that 'Mr. Benj. Scull, the Prince of Fishermen, produced a trout, which he this day took in Schuylkill off his lay-out line, that measured fifteen inches.' It was an extraordinary occurrence for this wary fish to be taken in this or in any other manner in the tide-waters of the Schuylkill."

In addition to feeding members during banquets, fish caught by club members were required as payment for the annual rent on the fishing company's property—the charge was three perch a year.

Remarks in Milnor's history indicate that Schuylkill Fishing Company members were well-acquainted with early fly fishing works such as Dame Juliana Berners' *The Treatyse of Fysshynge wyth an Angle* and Charles Cotton's *Being Instructions How to Angle for a Trout or Grayling in a Clear Stream*. The Philadelphia paper *Pennsylvania Gazette* also carried advertisements for flies, rods, lines and reels from England as early as the 1730s and 1740s, so the gentlemen who belonged to the club were probably among not only Pennsylvania's first fly fishermen, but those of the entire New World.

Favorite method

Although it appears as if members of the Schuylkill Fishing Company may have tried fly fishing, it was not their favorite method of angling. That distinction belonged to the earthworm. "Every member is provided with his own bateau and appendages," Milnor wrote of a typical fishing kit of the time, "or holds them in co-partnership with a friend, and furnishes himself with a large brimmed straw or ship hat and apron, rods, fishing tackle, and other convenient arma piscatoria, a chest, locker, angling box, pared bait, the common earth worm, for he will most likely be disappointed, if he expected to borrow."

As far as terminal tackle was concerned: "The plumb line is the favorite, with a snood of horse hair, with three to six small hooks, mounted on a tapering angling rod, of from twenty to twenty-five feet in length."

Membership in the Schuylkill Fishing Company became such a symbol of status among upper class Philadelphians before the Revolution that four other fishing clubs sprang up in the city. These were the Mount Regale Fishing Company in 1762, Fort St. David, probably in 1763, though the exact date of its founding is in question, and White Oak Barges and Liberty Fishing clubs in 1767.

During the Revolution

The capture of Philadelphia by British troops in 1777 brought a halt to the activities of the Schuylkill Fishing Company and other angling clubs during the Revolution. Company members secured their valuables from the Colonial Hall and formed the Philadelphia Troop of Light Horse under the command of the club's second governor, Samuel Morris. Only two members of the club took the Tory side during the conflict and at its end the club received a personal letter of thanks from George Washington.

"Though composed of gentlemen of fortune," the general wrote, "they have shown a noble example of discipline and subordination, and in several actions, have shown a spirit and bravery, which will ever do honor to them, and will ever be gratefully remembered by me."

Independence

With independence, a surge of patriotism changed the club's name from "The Schuylkill Fishing Company of the Colony in Schuylkill" first to "The Schuylkill Fishing Company of the Republic of Schuylkill" and then the "State in Schuylkill." It resumed meeting in 1781 with only 15 members and a few years later joined forces with the Society of Fort Saint David, whose clubhouse had been occupied and damaged by Hessian troops during the war and then later gutted by fire.

In 1812, the club replaced its original Colonial Hall, which was nothing more than a "rude edifice of timber," with a new "castle" built of sawed lumber. Then, in 1822, after construction of a dam at Fairmont "effectively dammed the ancient highway of the finny tribe, in their annual excursions from the ocean to the retired shores of our noble river," they moved their castle down the Schuylkill to Rambo's Rock opposite John Bartram's Botanical Gardens. It was at this location that the club played host to one of its most distinguished visitors, the Marquis de LaFayette, on July 21, 1825.

Accepting the club's welcome and a membership, LaFayette noted: "About half a century ago, I first crossed your beautiful stream in times of peril; far different now are the sensations I realize, in meeting my friends on so pleasant an occasion. I feel honored by your polite invitation, and kind reception in your ancient and agreeable State in Schuylkill. May you long continue happy and prosperous."

Reflecting the equality angling brings to the lives of its participants, the general was then handed an apron and given the job of turning the steaks.

The Schuylkill Fishing Company moved its castle from Rambo's Rock to an adjacent piece of property in 1843. It remained at that location until November 1887, when the noise and dirt of the Schuylkill East Side Railroad dealt a final blow to the fishing and the castle was dismantled and moved onto the Delaware River at Eddington.

At the time of the move to Eddington, there were still some shad and perch caught in the Delaware. Continued urban and industrial growth, though, gradually destroyed what was left of the fishing there, too.

In 1944, surrounded by industrial noise and pollution, the State in Schuylkill was forced to move once more. This time its members went to Andalusia, where they still gather today, the oldest existing fishing club in the English-speaking world, continuing a tradition expressed by A. Loudon Snowden at the company's 150th anniversary in 1882:

"It would be well for the active spirits in this busy age, who are so absorbed in the cares of business as scarcely to allow themselves a moment's time for recreation, if they would imitate the example set us by our fathers, and sometimes turn from the weary treadmill of life, to refresh themselves in healthful enjoyment. The founders, who were among the most enterprising, successful, and prudent men of their time, acted on the principle that we have but one life to live on earth, and that to live wisely and well, we should not only have hours for labor, but seasons of rest."

ANGLER

Mike Sajna is an outdoors columnist for Pittsburgh magazine.

Don't Lose Your Bearings

by Bob Stearns

Trailer bearings can go bad with little or no warning. Sometimes the first indication of trouble is a noise—like a mouse squeaking, or some wheel wobble. Normally, bearing problems on the road shouldn't sneak up on you if you're conscientious about checking them for play and if you keep them well-lubed. But in spite of the best maintenance, they can go at an inopportune time.

Working on any wheel bearings, auto or trailer, is a horribly messy job. It's impossible not to get grease all over every exposed square inch of your skin, clothes and anything else you touch. And by deliberate design wheel bearing grease is the stickiest stuff there is. It's a long, unpleasant chore unless you have just the right replacement parts and tools.

When bearings go bad at highway speed, they often explode inside the hub. A shortage of grease may not be the problem. There can be plenty of it, and the bearings can still go bad if just one of the rollers becomes sufficiently worn to slip out of its retaining ring. Then it instantly grinds up everything else into thousands of tiny, jagged particles. Even the bearing races, the metal rings that hold the bearings in place, are often gouged beyond usefulness.

If this occurs at highway speeds, the results can exceed your worst nightmares. Grease or no grease, all that grinding metal quickly generates a lot of heat, often enough to cause the axle spindle to become extremely hot in just a matter of seconds. This causes the bearings to freeze, and before long the wheel hub may actually become welded to the spindle. Then either a tire ruptures or the spindle shears completely off.

Blowing a trailer tire is bad enough, but the loss of a wheel at highway speeds can turn the trailer into a loose cannon.

I've been trailering boats for more than 30 years and I take good care of my equipment. The trailer wheels never go into the water past the rims. I pump grease into the hubs every six months or so.

I've learned some very important lessons from my experience with good—and bad—trailer wheel bearings. First, carrying extra races, bearings and grease is not enough. It makes much more sense to carry a complete spare hub, complete with races and bearings inside, already properly packed with grease. I keep mine in a large, heavy duty zipper-type plastic freezer bag so that dust and dirt cannot get in. A hub and bearing set usually costs \$30 or less. Consult your dealer to get the correctly sized parts for your trailer.

Carrying a complete spare hub (plus an extra cotter pin) has another advantage. It can be changed almost as quickly and easily as a spare tire without getting a lot of messy grease all over your hands, face and clothes. Then you have only to take the hub with the damaged bearings to a service station for a professional cleaning and repair job. Your rig can simply stay at home during this ser-



Art Michaels

vice, and once repaired, the old hub becomes your new spare.

Don't forget spare trailer wheel lug bolts. Carry at least enough for one wheel, because the odds are the lugs are different from those used on most autos, and you won't be able to find them at a roadside service station.

Even if you do carry a complete spare hub, don't forget that reasonable and routine attention is still a practical, money-saving idea. Start at the beginning of the season with the following procedures.

- Jack up each wheel, one at a time, and spin them by hand. Listen for grinding noises. Check for looseness (wobble), and tighten the spindle nut carefully, if needed. You can do that by tightening as far as it will go without excess force, and then backing it off just enough so that the wheel spins freely.
- Visually inspect the spindle seal on the inside side of the tire for grease leaks. If there is any leakage at all, replace that seal.
- If you have hubs with grease fittings on them, add a little more grease and then check to make sure you didn't overfill it enough to force the spindle seals out of their seats.

These procedures don't take much time, but they can pay big dividends. Even if the hubs have grease fittings, the bearings should be removed, cleaned and completely re-greased every three or four years if you don't submerge the trailer wheels. Let your dealer check the hubs every year if you submerge the wheels.

If you find anything at all suspicious and you're not absolutely sure how to fix it, let a pro get the grease on his hands.

Big Streams and Wet Flies

by Jeff Mulhollem

The first morning I saw Pine Creek in Lycoming County I fell in love, but I was lost, too. I admit I hadn't a clue how to fish it, and I thought at the time I was a pretty fair fly fisherman. I was used to smaller streams. I was overwhelmed by the size of that scenic trout river.

I found a stretch of what looked like pocket water below a long pool and a deep glide and set about fishing the edge—that's all I could reach and have any hope of detecting a strike. I worked my trusty fur nymph upstream. What I was doing seemed right, but when I reached the top of the fast water, I was fishless and frustrated. I found a boulder at the water's edge and sat down with a cup of steaming coffee from my thermos to think about what to do.

While I sat there another angler came along, waded into the big pool and began to throw a long line downstream. He was obviously fishing wet flies. But he didn't look like the old-timers I often see wet fly fishing on trout streams near my home. Altoona, through the years. He was younger, wore modern neoprene waders and carried an expensive fly rod. An angler's trappings are unimportant, I know, but in this case they sent me a message. This was something I hadn't seen before.

I became more interested when he began catching fish, maybe six in 15 minutes. After a while I couldn't resist walking over to talk with him, despite the possible breach of etiquette. The last thing he probably wanted was to have a pleasant morning of fish-catching interrupted by some stranger's questions about wet fly fishing. But I'm a determined guy when my interest is piqued by something vitally important, like learning how to catch more trout, so I took a chance.

As it turned out, I needn't have worried. He patiently showed me his flies. He called them "soft hackles," the new name many fishermen call wet flies these days. He shared his philosophy about covering big streams with wets, and I have been meeting him on Pine for years to fish.

The lesson was brought home to me twice more in the next year. On a cold, drizzly April afternoon on lower Kettle Creek, my friends and I weren't doing well at all. The hoped-for Hendricksons, Quill Gordons and Blue Quills were nowhere to be found, and



we were thinking about heading for somewhere warm like the Cross Fork Inn. Then we came across four older fellows—retired gents, most likely, probably staying in a nearby camp together. They stood in a big pool, all fishing downstream, having a ball, noisily catching trout after trout. They looked like they knew what they were doing.

I don't know why we weren't fishing wets, but we weren't. As soon as we started, we began hooking trout on patterns like a Quill Gordon wet and a Little Blue Quill.

On the way home that week, I stopped at a wide stretch of the Little Juniata River that I sometimes think I know pretty well. It was early evening and caddises were beginning to pop. Previously I would have fished only a dry fly like an elk hair or Goddard caddis, but I decided to experiment by using sunken caddis emergers and pupae downstream. Oh, what a night of fishing. I never did that well before during a caddis hatch—not on "the river"—not anywhere.

Since then I've been a changed fisherman. When I'm on a big stream I fish wet first, and only change tactics when necessary. Often it's never necessary. Through many early season hatches, when trout are eating duns off the top, they'll grab a soft hackle tied on a light-wire dry fly hook just un-

der the surface. They seem to think the artificial is struggling to get away.

On small streams, I still believe in using nymphs upstream, and I enjoy dries best of all. But on big Pennsylvania trout rivers, wet flies are where it's at for me. If you haven't given them a chance and if you like the bigger streams, you might find that wets will open up a whole new dimension in fly fishing for you, and they will allow you to catch more trout.

Here are a few tips:

● **Weight your wets.** Put a few wraps of lead wire on some of your wet flies. The weight may make the rising action of the flies at the end of a drift more exaggerated and lifelike, causing trout to grab them.

Whenever trout are not rising, I use at least one weighted wet to search the water. A weighted fly no doubt drifts a bit deeper than an unweighted fly, which the fish usually seem to prefer in a big stream. Tying weight into your flies allows you, in most cases, to use no splitshot. With the long casts often needed on a trout river, splitshot can cause tangles, especially if you are using more than one fly.

● **Keep your droppers short.** About two inches is about right. And use stiff leader material to keep them straight. Otherwise, they'll tangle often. Fishing more than one fly seems to increase your odds of success, although I find using three flies, like the old-timers, regularly results in hopeless snarls.

Try two: A weighted, dark-colored wet on the point and an unweighted, brighter attractor pattern on a dropper up about three feet. Then slow your casting stroke, throwing an open loop to avoid tangles.

● **Try soft hackles.** They are a new kind of wet fly, sometimes also called "emergers." Many are tied on light-wire dry fly hooks so that the flies can be fished in the surface film, upstream or down and across, as we fish a traditional wet fly. They are tied with materials that move and act alive in the water rather than the stiffer materials used in traditional wets. The traditional wets still work, but the new soft hackles work even better.

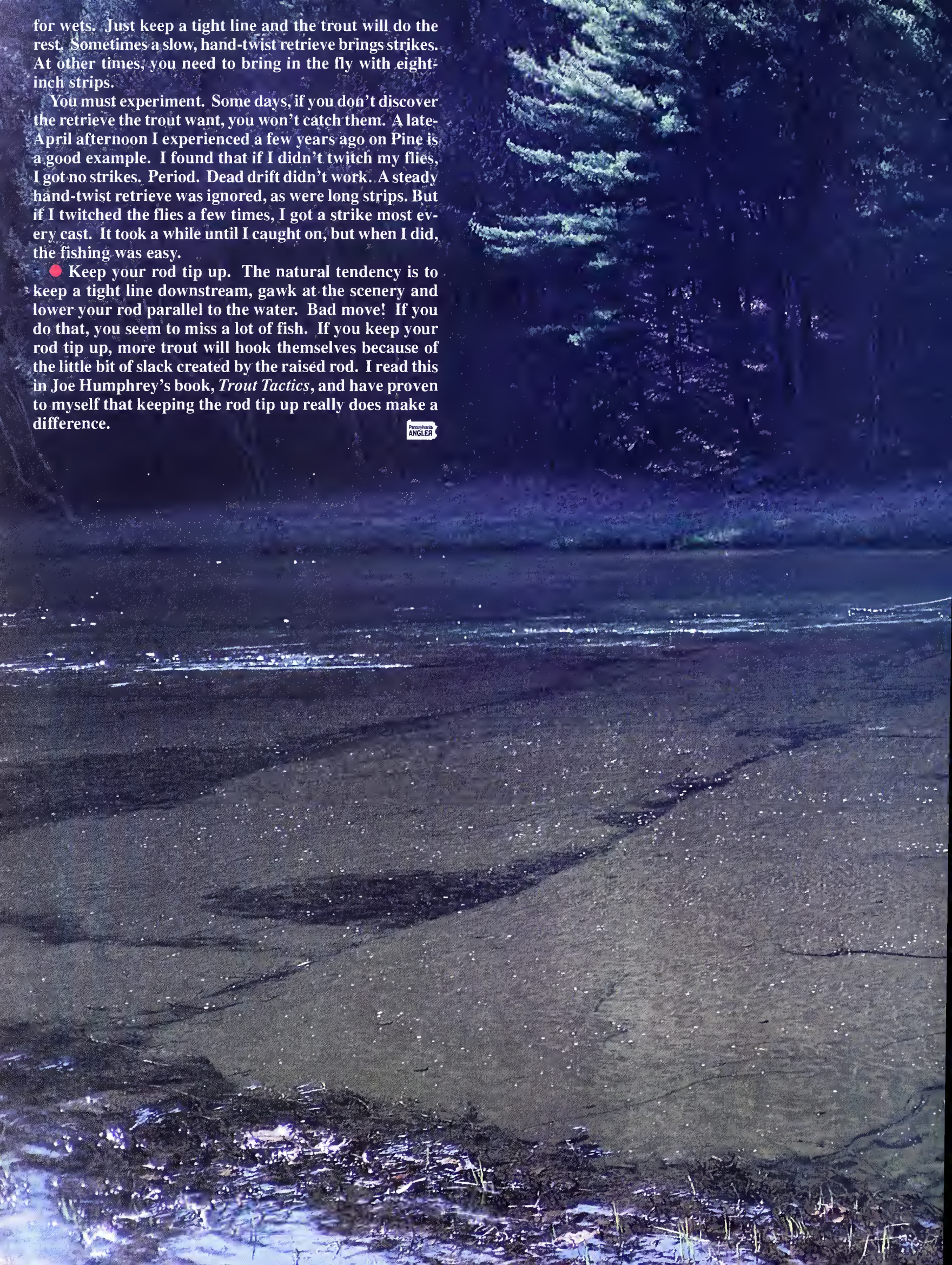
● **Vary your retrieves.** More than half the time on the big streams I fish, especially in the spring, no retrieve is necessary at all

for wets. Just keep a tight line and the trout will do the rest. Sometimes a slow, hand-twist retrieve brings strikes. At other times, you need to bring in the fly with eight-inch strips.

You must experiment. Some days, if you don't discover the retrieve the trout want, you won't catch them. A late-April afternoon I experienced a few years ago on Pine is a good example. I found that if I didn't twitch my flies, I got no strikes. Period. Dead drift didn't work. A steady hand-twist retrieve was ignored, as were long strips. But if I twitched the flies a few times, I got a strike most every cast. It took a while until I caught on, but when I did, the fishing was easy.

● Keep your rod tip up. The natural tendency is to keep a tight line downstream, gawk at the scenery and lower your rod parallel to the water. Bad move! If you do that, you seem to miss a lot of fish. If you keep your rod tip up, more trout will hook themselves because of the little bit of slack created by the raised rod. I read this in Joe Humphrey's book, *Trout Tactics*, and have proven to myself that keeping the rod tip up really does make a difference.

Photo by
ANGLER





Big Streams

When most people think about trout fishing in Pennsylvania, they picture a small creek and a fisherman in hip boots. Most people seem to think all the big trout rivers are out west.

The Keystone State has its share of big water—wide, strong, brawling streams that an angler can't fish effectively without chest waders, can't cross in most places, and must wade carefully, especially in the spring, to avoid a dunking, or worse.

On the eastern border, the upper Delaware River is perhaps both Pennsylvania's biggest and best trout river. It is also one of the state's most famous big waters, and for good reason. Anglers who know it well give glowing reports of its big, wild rainbows and large browns.

Another well-known trout river is beautiful Pine Creek, in Tioga and Lycoming counties, which carved the well-known Pennsylvania Grand Canyon. Its name is a misnomer. Pine is not a creek at all, but one of the state's biggest trout rivers. Pine is powerful. An angler drowned there two years ago at Slate Run when he lost his footing wading in high water.

There is the scenic Little Juniata River in Huntingdon County, a stellar brown trout fishery that is smaller than Pine or the Delaware, but still huge in comparison to most trout streams in the East. And there are the two big branches of Sinnemahoning

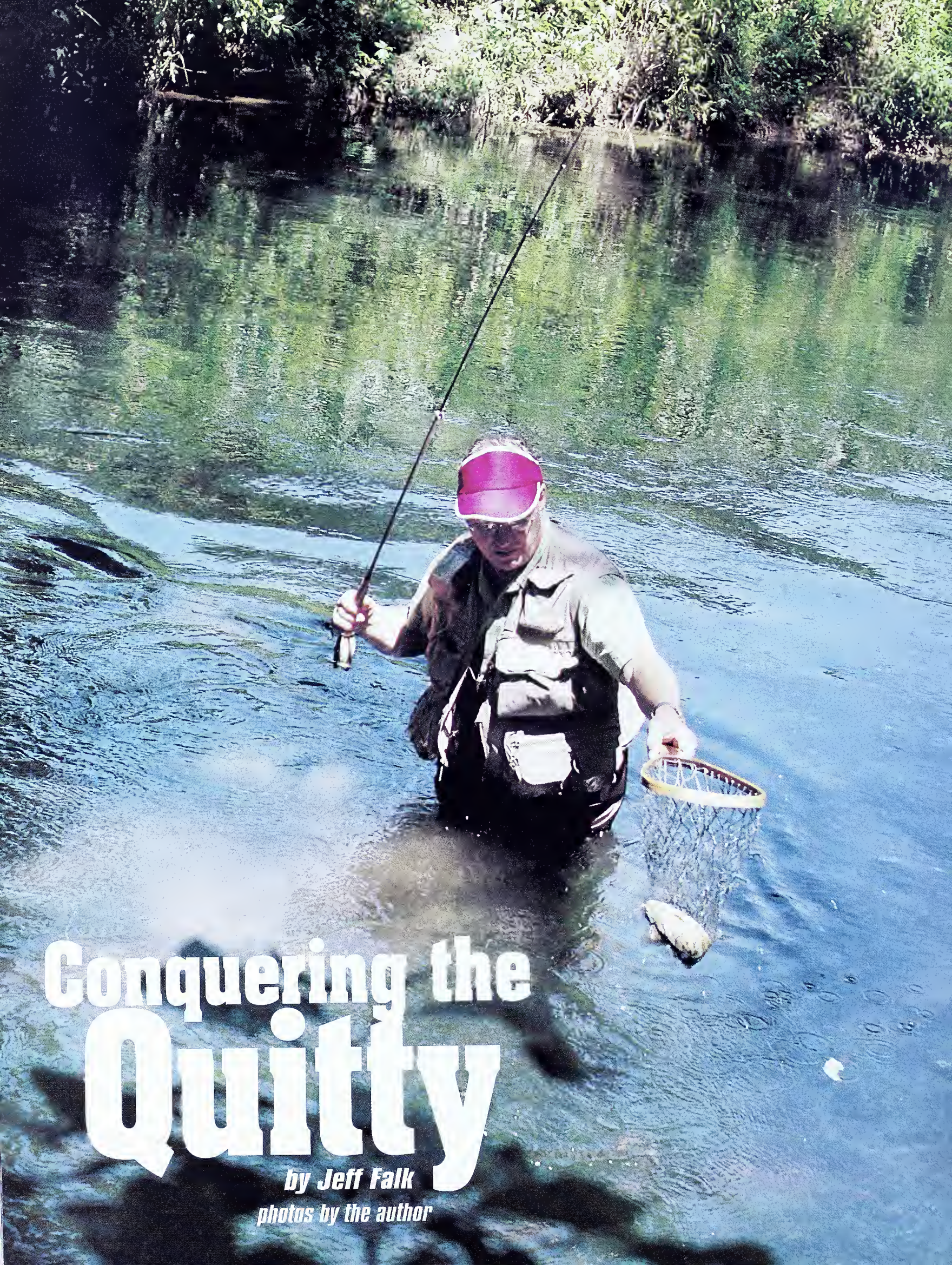
Creek, the First Fork and the Driftwood Branch, which are big streams, especially in the spring.

Lower Kettle Creek in Clinton County is pretty big, too, and Penns Creek in Centre County in places is wide and strong, not to mention extremely slippery. Penns Creek is crazy to wade, like walking on greased bowling balls. But many anglers in the know rank it among the best trout fisheries in the East.

The Youghiogheny River to the southwest, in Somerset County, might be Pennsylvania's best-kept trout fishing secret. Those who are familiar with it say the Yough keeps getting better and better. It also might be the state's strongest trout river. It's one powerful stream.

The Allegheny River below Kinzua Dam in Warren County is also huge. This tailrace fishery provides trout fishing year-round if you care to brave northern Pennsylvania's winters.

This list of big water is no doubt incomplete. But it does show that there is more to trout fishing in Pennsylvania than small, waist-deep babbling brooks. There may not be as much big water as out west, and it may not be as good. But if you like trout rivers, Pennsylvania has enough to keep you happy for a long time. Try 'em this season!—JM.



Conquering the Quitty

by Jeff Falk
photos by the author

Throughout its history, Quittapahilla Creek in Lebanon County has been profoundly affected by people. And as is the case with most things in nature, our deeds have proven to be both a blessing and a curse.

Originating from a spring to the east, the 11-mile Quittapahilla splits Lebanon County in half geographically. In so doing, the "Quitty" passes through the most densely populated areas of Lebanon County. This lets the creek provide angling enjoyment for many people, as well as the opportunity for people to harm the waterway.

For a 20-year period from the mid-1960s to the mid-1980s, the Quittapahilla was not stocked with trout. But since the Bethlehem Steel Corporation ceased operations at its Lebanon plant in 1985, aquatic life in the stream has made an amazing comeback.

"A portion of the Quitty ran right through their property," says Commission area fisheries manager Larry Jackson. "Occasional cyanide discharges kept the Quittapahilla on its heels for some time."

Since its recovery from pollution, the Quittapahilla has become the most important coldwater fishery in Lebanon County, and it now attracts many anglers from surrounding counties. From its origin in the eastern portion of the county, the Quitty picks up the overflow from Stovers Dam and a few smaller springs in northern Lebanon Township. The creek, which criss-crosses to the north and south of Route 422, collects Snitz Creek in West Lebanon and Beck Creek and Bachman Run in Annville before spilling into the Swatara Creek.

"The recovery of a stream depends on the pollutant," says Jackson. "Habitat loss usually takes place over a long time and therefore recovery is equally long, if habitat restoration occurs at all. It's a funny thing to say, but I'd rather have a fish kill, not chronic, of course, than have the habitat in a stream destroyed. The recovery's much faster when you have a fish kill because when the toxic slug is gone, the fish-supporting habitat remains to be naturally repopulated or stocked. The Quitty has good water temperature and it's a fertile stream. If it's lacking anything, it doesn't have the bottom that provides for a diverse community habitat."

Because it is spring-fed, the Quitty remains cold throughout its length, and its volume is relatively constant. The stream is very fertile, its pH ranging from 7 to 7.5. Aquatic life is abundant in the Quittapahilla and trout growth is good. Mayfly hatches, including tricorythodes, blue-winged olives and sulphurs, bring a rise of fish throughout the season.

"I patrol the area often and I find more fishermen on the Quitty than anywhere else," said Joe Waybright, a deputy waterways conservation officer in Lebanon County. "There's more fish here than anywhere else in the county. The Quitty has an ample flow of water. So many other streams are so low and clear, especially last year with the drought. But the Quitty had a good amount of water year-round."

Besides its easy access from Route 422, the Quittapahilla offers fishermen a host of conveniences. Eating establishments and hotel accommodations are within fly casting distance of the stream. The Quitty also offers parking areas and about two dozen lad-

ders built by the Commission for anglers to traverse the fences of landowners. Possibly the most important quality of the Quitty is a cooperative relationship between those landowners and fishermen.

"We have cordial landowner relations along the entire length of the stream," says Waybright. "There's no one along its length who denies us access. The landowners are basically catering to the fishermen and they get nothing in return. Usually we go around before we stock and talk with the landowners. We ask them about problems they might have and we work with them to get them taken care of. The biggest complaint from the landowners is about the garbage and trash that fishermen leave behind."

The best places to fish the Quittapahilla are from West Lebanon to Palmyra because most of Lebanon is channelized. West of Annville on Route 422, turn north on Clear Spring Road. Then drive about a quarter-mile to Syner Road, which bears left. Syner Road parallels Quittapahilla Creek, and portions of the meadow stretches there are similar to the famous Letort in Carlisle. The Syner Bridge, one of nine to cross the Quitty's stocking areas, is one of the most popular spots.

"There are always places where trout congregate," says Waybright. "People don't necessarily like to fish at bridges. There are a few good pools around bridges, but generally fishermen like to get away from crowds."

"If I see something wrong with the Quitty, I get it corrected," Waybright says. "We get a crew together and do whatever work needs to be done. We're to the point now where if someone dumps something into the stream, I get a phone call right away."

The small town of Annville also provides some excellent fishing on the Quittapahilla. Pleasant Road, Route 934, Spruce Street and Mill Street all join Route 422 from the south in Annville, and all come in contact with the Quitty.

Annville is also the site of a proposed delayed-harvest, artificial-lures-only area on the Quittapahilla, which will go into effect this spring. The boundaries of that one-mile stretch are Route 934 to the west and Spruce Street to the east.

Located in the middle of the delayed-harvest, artificial-lures-only area is Quittie Park, just off Bachman Road in Annville. Quittie Park, which was made possible by the Annville Supervisors, is maintained by a local Boy Scout troop. The park provides a nature trail, picnic benches and fishing areas for visiting anglers.

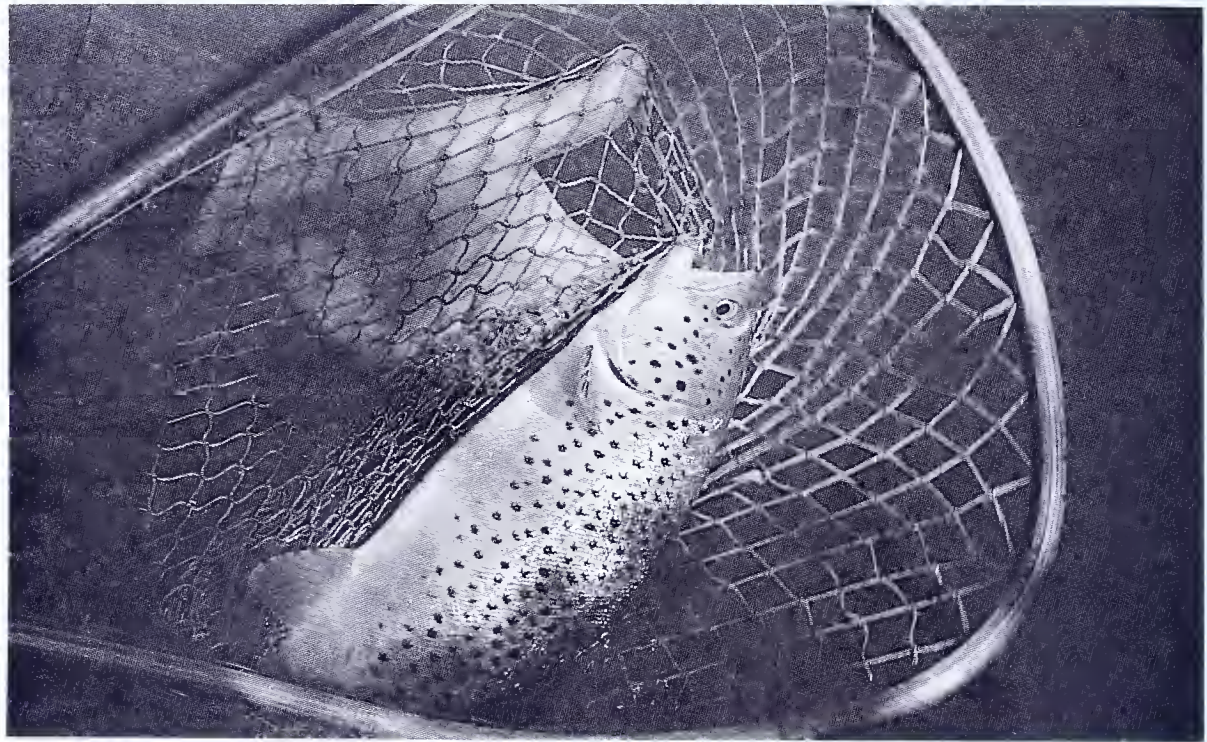
According to Jackson, Annville's delayed-harvest, artificial-lures-only area will be stocked twice a year, with the first stocking "as early in March as possible." Fishing will be permitted year-round in the area and only artificial lures and flies can be used. From March 1 until June 15, anglers can catch as many trout as they wish, but the fish must be released. After June 15 and until the end of February, fishermen can keep three trout per day, nine inches or longer.

"I think the area will be well used," says Jackson. "The delayed-harvest program provides additional trout fishing opportunities to the conventional stocking program."

"There's an increasing number of fishermen who want to go trout fishing 365 days a year," says Jackson. "They want to go out with a good expectation of catching trout, even though they

Aquatic life is abundant in the Quittapahilla and trout growth is good. Mayfly hatches bring a rise of fish throughout the season.

Cordial landowner relations characterize the access on the Quitty, but the most common landowner complaint is littering.



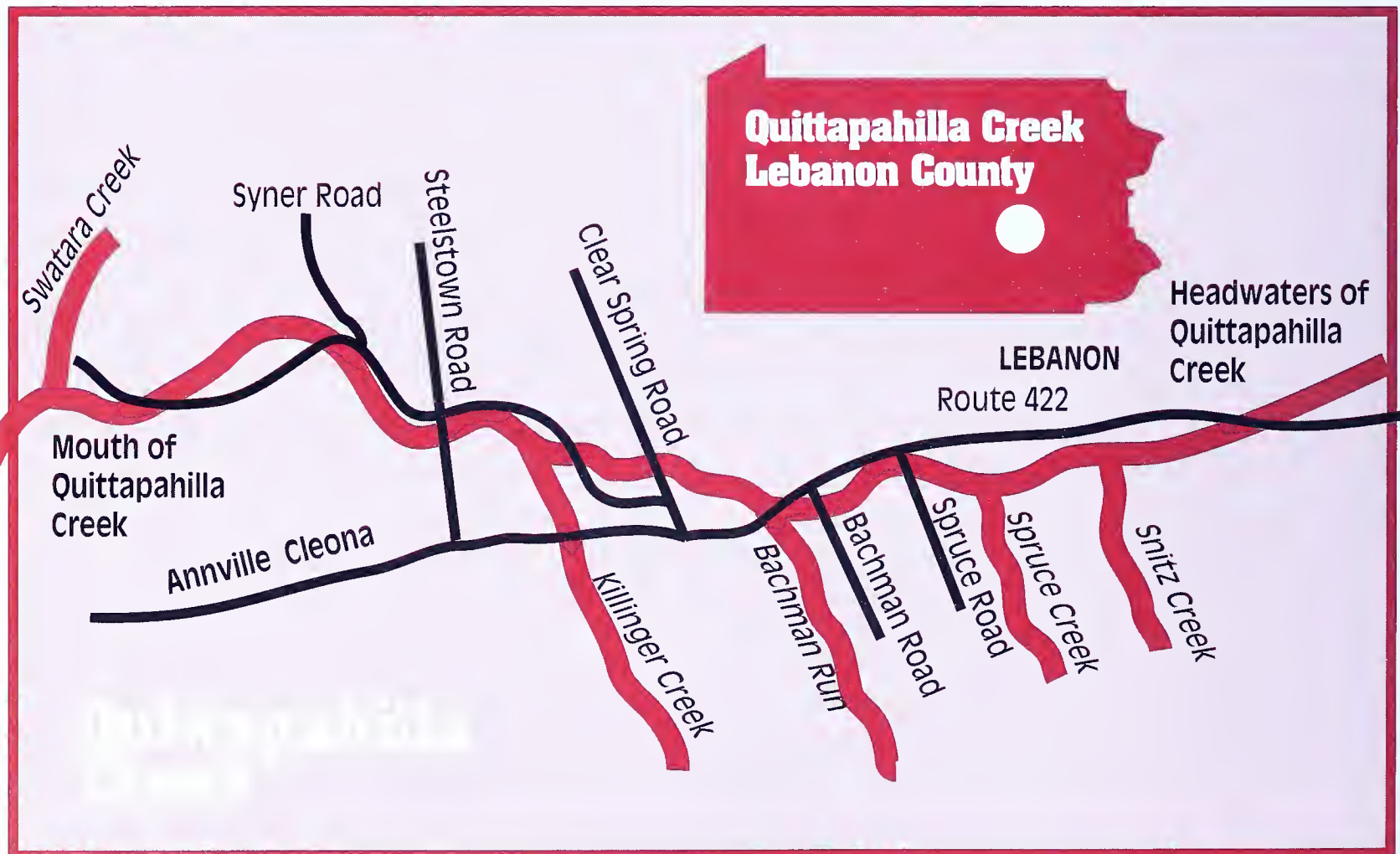
may have no intention of keeping them. The Commission wants to increase angling opportunities wherever possible. The delayed-harvest, artificial-lures-only program extends the time when an angler can expect to fish over a good number of trout."

After some experimental stocking in the early 1980s, Jackson recommended that a section of the stream be put under conventional regulations on the Commission's 1985 spring stocking list. Slowly, the stocking area of the Quitty was enlarged, until last year it reached as far upstream as Mill Street.

This year the Quittapahilla will reach its goal of being stocked

all the way up to Snitz Creek. Although dates for the stockings were unavailable at the time of this writing, the Commission has planned one preseason and two in-season stockings. Quitty tributaries Snitz Creek and Bachman Run will also be stocked.

"Lebanon County doesn't have a lot of streams," says Jackson. "I think it's a good sign when we have a stream that size come back to a point where we can stock trout again and see a good following of fishermen. It's a pat on the back for the people of Lebanon. It's just unfortunate that economic difficulties might have helped the stream."





Art Michaels

Over 500 people including some 200 youthful anglers ranging in age from four to 12 attended the 3rd Annual Fishing Derby at the Commission's Tionesta Access last August 15. Volunteers placed about 500 trout donated from the Farnsworth Trout Club in this netted area along the Allegheny River at the access. Employees from the Commission bureaus of Law Enforcement, Fisheries, and Property and Facilities Management voluntarily conducted the derby. Some 128 donated rods and reels were given as prizes. The derby was organized and conducted by WCO Joe Kopena with enormous Commission and community support. The yearly event introduces youngsters and families to fishing.

1991 SRAFRC Progress Report

The Susquehanna River Anadromous Fish Restoration Committee (SRAFRC) recently reported the progress of its 1991 program. Shad trappings ended at the Conowingo lifts on June 7, 1991. This season, the committee collected 27,227 shad including 13,330 from the west lift and 13,897 from the new east facility. The committee stocked 20,369 at the Tri-County Boat Club south of Middletown, 3,850 at the Middletown Access and 443 in Conowingo Pond. The known mortalities for lifting, holding and transporting shad were 59, 34 and 805 at the respective sites. For research purposes, the committee sacrificed about 600 fish. Also at Conowingo the committee caught several thousand river herring. The committee stocked 1,395 alewives and 1,476 bluebacks above the dams at Middletown and 1,129 bluebacks in Conowingo Pond.

Some 57 shad were successfully radiotagged and released in two batches from the Tri-County Marina. Based on 190 tag returns, the shad population estimate for the upper Bay/lower river is 155,000 fish, an increase of 26 percent from 1990.

The Delaware, Hudson, Connecticut and Susquehanna rivers provided a total of 29.8 million shad eggs to the Van Dyke Shad Rearing Station. As of June 24, 1991, the committee released 8.05 million fry at Thompsonstown, stocked 4.88 million fry below the Conowingo dam and stocked 800,000 fry in the Lehigh River.—Ann Kreisler.

Delaware River Maps

The Delaware River Basin Commission (DRBC) recently released an updated version of the Delaware River Recreation Map that covers the 200-mile non-tidal reach of the Delaware River from Hancock, NY, to Trenton, NJ.

It's a 10-map series showing river channel locations and depths, stream miles, reference points and a classification of stream-flow characteristics according to the International Canoe Federation's Scale of River Difficulty.

Included in the package is a listing of private liveries, an updated list of river access areas in New Jersey, New York and Pennsylvania, and a canoe safety pamphlet.

The map set costs \$10. It is available at the DRBC's headquarters, 25 State Police Drive, West Trenton, NJ, or by sending a \$10 check or money order to the DRBC, P.O. Box 7360, West Trenton, NJ 08628.

DRBC also offers an eight-section recreational map of the Schuylkill River from the Tamaqua Dam to the Fairmount Dam, Philadelphia. Each set costs \$8.

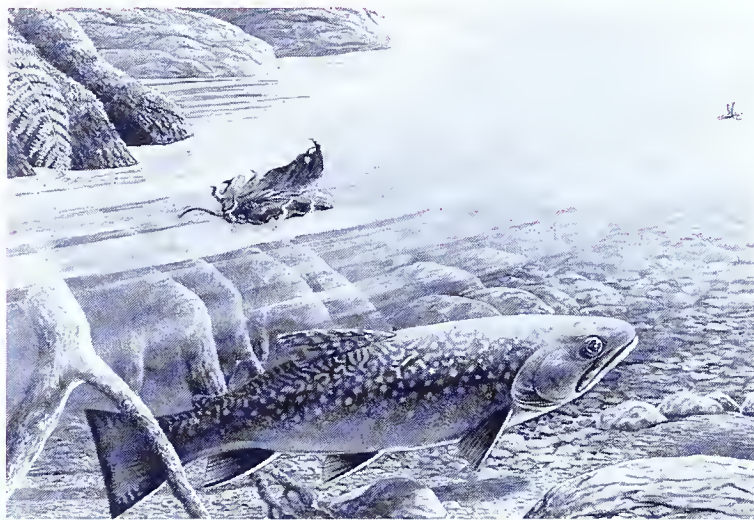
KARE Pamphlet

Fishing Skills and Aquatic Education Program is the title of a new Commission pamphlet that explains the skills facilitator (teaching instructors) and the skills instructor (teaching children and others) portions of the KARE Program. If you would like to become either a skills facilitator or a skills instructor, or to learn more about this program, you can obtain this publication by contacting: KARE, PA Fish & Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673. With requests please include a business-sized stamped, self-addressed envelope.



Art Michaels

Meet Tom Thomas, the Commission's Information Systems Manager. Tom and his staff oversee the Commission's central computer system. This computer system handles most of the Commission's automated business functions, including the fishing license system, boat registration system, law enforcement system, magazines subscription system, and several other administrative programs. The Information Systems Division staff assists the Commission in solving many business-related problems, and automating manual procedures wherever possible. Tom is also chairman of the Commission's Automated Technology Committee, and he is involved in data processing planning and in the acquisition of automated technology items.

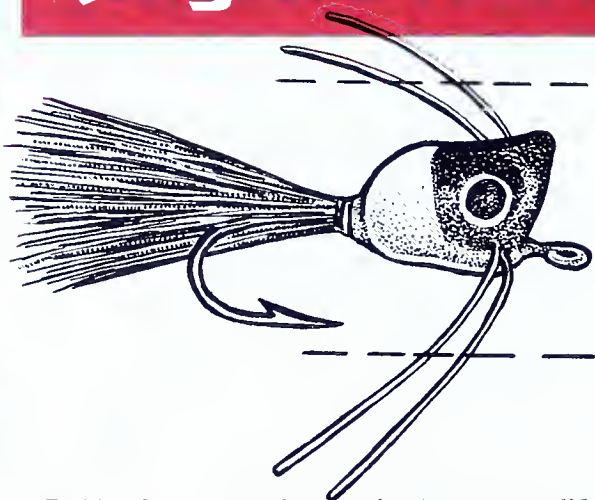


"That Special Moment," by George Lavanish, is the title of the first in a series of three trout paintings to be published during the next three years by Pennsylvania Trout Unlimited. The paintings feature a presidential edition cosigned by former U.S. President Jimmy Carter. For more information and ordering details, contact PA Trout Unlimited at 1-800-328-9278.



Dedicated to the sound conservation of our aquatic resources, the protection and management of the state's diversified fisheries, and the ideals of safe boating and optimum boating opportunities.

Angler's Notebook *by Joe Reynolds*



Rubber legs can make popping bugs more difficult to cast. Pull the legs off or shorten them for easier casting and no noticeable decrease in the frequency of strikes from bass or panfish.

Because monofilament line is buoyant, use short leaders with sinking fly lines, and leaders as short as one to three feet when bottom-bouncing flies. Flies will go deeper and bring more strikes when fish are holding deep in cold water.

Light-weight lures can be difficult to cast with baitcasting outfits. Use a soft-action rod, a narrow-spool reel and four-pound-test line for best results with lures that are a quarter-ounce or lighter.

It wasn't until 1651 that the fishing reel was mentioned in Western literature, in *The Art of Angling*, written by Englishman Thomas Barker, who worked for Oliver Cromwell.

Try fishing a small plastic-tailed jig about six inches below a bobber for success with spring crappies. Fish this rig just as you would fish bait, allowing it to sit motionless with an occasional twitch of the rod tip to impart action.

A short, four-inch shock leader of eight- or 10-pound-test monofilament is good insurance against cut-offs when using two-pound-test line.

Monofilament usually tests at a greater breaking strength than indicated by the manufacturer. Those who seek record fish should use only what is called "rated" line because it is guaranteed to break at or below the pound-test indicated on the package.

Three-dimensional depthfinder screens help anglers visualize what's under the boat, but the two-dimensional mode provides a greater level of detail and more advanced features to help find and catch more fish.

Surface vegetation, such as cattails, is a good springtime fishing area. Largemouth bass and northern pike often prefer the roots of this growth and continually cruise the shoreline looking for prey. Accurate casting is essential.

One of the best baits for catfish is what the fish eats in its natural environment. Crayfish and live minnows are excellent baits, but they are often overlooked in favor of so-called "stink baits."

Reels should be filled to approximately an eighth-inch of full capacity. Reel manufacturers say this is the optimum amount of line for the best casting distance and drag performance.

Mix a box of strawberry gelatin into your next batch of carp dough and you'll catch more carp.

Bending a short length of spinner shaft at the eye to a 45-degree angle often prevents line twist.

illustration- George Lavanish

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On the Water

with Dave Wolf

Sportsmen's Clubs

Metal chairs grind into the concrete floors as men, a few women and a handful of youngsters gather in the cold, damp clubhouse. The sign outside reads differently at the beginning, but ends the same—"Sportsmen"—at nearly all the locations I have visited, either as a guest or a member. It seems that sportsmen have not caught on as of yet that "sportsmen" should be changed to "sports-person," or something along those lines in recognition that many women, as well as men, have spent countless hours in meetings and in the field to improve fishing and hunting for everyone.

I recall the days that I held the office of president in a number of these clubs, and I remember that my primary concern was what was happening within "my" county. Call it shortsighted or selfish, or justify it as I did with the fact that small battles to keep streams silt-free won here and at hundreds of other locations throughout the state do make a difference. Our club did just that. It made a difference. It took a small hammer and hand-held chisel and dented the large rock of the would-be spoilers of the waters we loved so dearly. We won battles both large and small, and we lost our share as well. Still, we made a difference.

But not unlike our Armed Forces, peacetime often brings loss of interest. If there was not an immediate threat to our sport in one form or another, attendance at our monthly meetings dropped dramatically. The once noise-filled clubhouse held only the dedicated few among us. Those willing to take on the battles of issues with long-term effects such as acid precipitation. Battles that we could hardly put a dent in; battles that lasted for years on end—perhaps a lifetime.

As president I worked diligently to bring those non-committed members back to the meetings. I planned workshops, brought in entertainment via anyone who went hunting or fishing or knew anything on the subject and had slides to prove it. Interest peaked and fell and then surged, peaked and fell again. It was frustrating to say the least—the large phone bills, the miles and miles of wear and tear on my truck and the gallons of gas needed to propel it.

I have dedicated years of my life to sportsmen's organizations because I know they can make a difference. I also know that they can be strong allies to both the Fish & Boat Commission and the Game Commission, despite the fact that at times swords were crossed and battle was done on certain issues. Still, I knew that we had common goals, even during those times when we disagreed on how to achieve them.

I mention all of this not to tell you of past achievements, for



there were as many failures as victories, but rather to heap a little praise on the small sportsmen's clubs throughout the state. The old, worn buildings held together only by devoted members who labor on weekends to keep the roofs from leaking and the siding from rotting. That handful of members who attend every meeting, always hoping to be greeted by a room full of metal chairs—those chairs filled with the young and old, male and female. Sportsmen willing and able to meet the challenge that lies ahead for all of us.

I know many of these clubs are rearing trout in the Commission's Cooperative Nursery Program and others are part of the Commission's Adopt-a-Stream program. Still, there are others who tackle neither of these chores, but they do participate in protecting the habitat of waterways throughout the state and remain on top of key issues affecting both commissions and making their voices heard.

The contribution of such clubs that often hold children's fishing clinics and other worthwhile events are the grass roots of fishing as we know it today. And in spite of the empty chairs and the damp, cold clubhouses, they continue to influence the sport and those who participate. Fishing in Pennsylvania would not be the same without the thousands of clubs scattered throughout the state, of that I am sure.

For all those who have labored so diligently and who become frustrated with small gatherings that seem to mean too few really care, know in your hearts that you are contributing. Know too, that others recognize your efforts even though they may not bestow praise or walnut plaques. Perhaps even more importantly, anglers will raise a bent rod in a silent salute to an unknown sportsman who needs neither praise or acknowledgement—a sportsman who takes satisfaction in his or her accomplishments by a feeling from deep within. Nothing more is needed.

ANGLER





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Susquehanna River Shad Update



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

One-hundred and twenty-six years ago, Pennsylvania Governor Andrew Curtin signed Act 336, which established the post of Pennsylvania fish commissioner. At that time, the first commissioner's major responsibility was management of the migratory fishes in the Susquehanna River. Today, the Commission's responsibilities have broadened to include every public fishery and boating resource in the Commonwealth, and it also participates directly in management decisions affecting the Great Lakes and the Atlantic marine fisheries.

In spite of these broadened responsibilities, the Commission still places a very high priority on management of Susquehanna River anadromous fish, in particular, the American shad. The Commission took a major step 40 years ago when it conducted a comprehensive study of the migratory habits of shad in the river. The results of the 1952 study were encouraging and led to many additional studies and the formation of an advisory group to administer study and restoration efforts. In 1969, the Commission and representatives from Maryland, New York and the U. S. Fish and Wildlife Service formed the Susquehanna Shad Advisory Committee to work with Philadelphia Electric Company and upstream utility companies to implement a major shad restoration program. Restoration efforts have moved slowly but steadily forward during the past 23 years.

In July 1991, I reported to you on the completion of a modern fish lift at the Conowingo Hydroelectric Station. It was constructed by Philadelphia Electric Company at a cost of \$12 million. During operation of this lift for the first time in 1991, some 27,227 adult shad were captured at Conowingo, more than three times the catch just two years before, and nearly double the 1990 catch. At the same time, the upper Chesapeake Bay American shad population has grown from 8,074 in 1984 to 139,862 in 1991, a 17-fold increase.

Numbers of fish, however, do not tell the entire success story. Fish captured in 1991 were 40 percent females and nearly 15 percent repeat spawners. These factors are very important to the continued success of the restoration effort because they indicate that a healthy and more viable population is being established.

On January 24, 1992, a proposed settlement agreement was transmitted to the Pennsylvania Power and Light Company, Safe Harbor Water Power Company, and the York Haven Power Company, licensees of the Holtwood, Safe Harbor and York Haven hydroelectric projects. The proposal spells out a three-year design and construction period for installation of fish passage facilities at these dams. During 1992 the Commission is making every effort to reach final agreement on installation plans and schedules with the dam owners.

In the meantime, the 1992 restoration efforts and studies will continue. Both lifts at Conowingo will be operated, and captured American shad and some herring will be trucked upriver and released. Up to 35 million American shad eggs will be collected from the Hudson, Delaware and Connecticut rivers, and our Van Dyke Shad Rearing Facility near Thompsettown will rear fry and fingerlings for 1992 release into the Susquehanna Basin and the upper Chesapeake Bay. Van Dyke will also hatch and rear up to four million American shad eggs from the James and Pamunkey rivers for the Virginia Department of Game and Inland Fisheries and the James River restoration program. Juvenile shad assessment efforts will be conducted in Pennsylvania during August through November, while Maryland fisheries personnel will conduct adult shad assessments in the lower Susquehanna River and upper Bay.

A major effort will be made to gain specific information regarding movements and behavior of migratory adult shad as they approach the dams at different river flow and project operating conditions. It is planned to radio-tag, release and monitor movements of several hundred adult shad as they approach Holtwood Dam, and in the tailraces and spillway areas of the three dams. Results of this study should provide valuable information needed to make final design decisions on location and types of entrance and attraction structures needed to complete engineering designs.

The Commission will continue all necessary efforts to complete these important fish passage projects as soon as possible.

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Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine

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The cover

This issue's front cover, photographed by Barry and Cathy Beck, shows Cathy Beck about to release a rainbow trout in a northcentral Pennsylvania stream. If you're looking for similar success this month, please see page 8 for more than 195 suggestions on where to go fishing opening day and early in the season. And for the latest on new trout fishing opportunities for the 1992 season, turn to page 22. Do you fish for trout from your boat? The article on page 18 explains how to raise your score with suggestions on where throughout Pennsylvania to try your luck. If you fish for shad from a boat, the article on page 4 can help you score more. And on page 24, you can explore the idea that trout don't make the stream interesting and keep us fishing—it's the infinite variety of fishing situations our streams offer, where no two casting opportunities are the same.

Better Shad Fishing from Your Boat

by Art Michaels
photos by the author

You can always tell who the best boating shad anglers are. They operate their boats more skillfully than others, and they catch more shad than other anglers. They combine the best fishing and boating know-how.

Consider some of the heads-up strategies these anglers use. Put these ideas to work this season and you could enjoy better shad fishing from your boat.

Picking the right spot for anchoring is one key to success, and even though choosing a spot requires some thought, there's no sin in following the crowd to the hotspots. In fact, you're lucky if you find a group of anchored shad fishermen. They're there for a reason, and if you see that the action is worthwhile, you can return to that spot some other time and have the dance floor all to yourself.

In normal river conditions you want to anchor so that your boat sits on the edge of the channel. Look over a spot carefully first from shoreline to shoreline to determine where the deepest water is. To find the channel's edge, first look for the bubbly fastest water. Then scan the water on both sides to locate the area where the bubbles disappear and the flow slackens. That's the channel edge.

Knowledgeable shad anglers anchor in the deepest channels in low water, places closer to shore in high water, and along more pronounced channel edges at other times (see figure 1 on page 7).

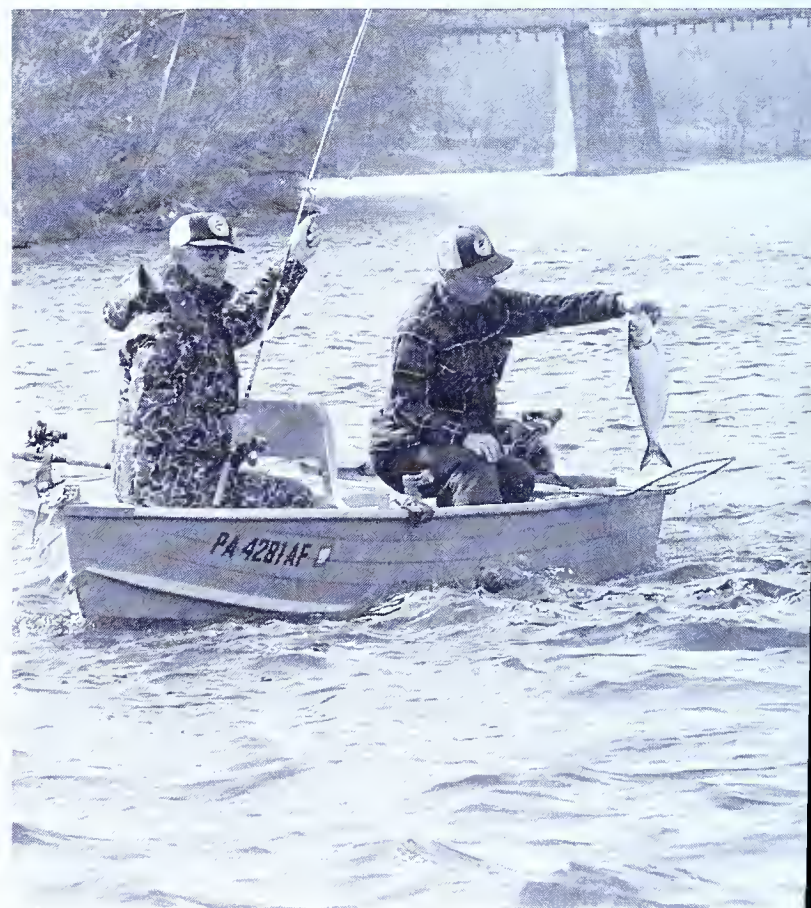
They use this tactic because shad move closer to shore to migrate upstream as the flow increases and strengthens. In high water, you most often don't even need a boat to intercept the shad on their upriver journey because they remain out of the strongest flow, and that frequently means that the fish can be found close to shore.

Check out a spot also looking downstream and upstream so that you get an idea of the route the shad would take on their upriver migration. The channel edges of deep-water curves are also likely spots.

For instance, I once enjoyed fast action one morning by fishing the side of a narrow, deep river portion through which the shad had to travel on their upriver migration. This run curved a little in its upper third. My partner and I studied the run first to determine where the fish would probably be when they traveled upstream. Then we anchored our boat on the curve's channel edge. In this position the shad looked right at our darts as they turned upriver to follow the edge of the deep, swift trench.

Similarly, look for the river's largest rocks and bridge abutments in deep water. These spots are fishy because shad often congregate on the downstream side of boulders and other obstructions in deep water to rest before continuing their upriver journey. Fishing in these places can sometimes resemble dropping a dart into a hatchery raceway, where you'd find the fish practically stacked on one another.

To make the most of this situation, motor upriver of a boulder or bridge abutment slightly to one side of it. Pick the side that you think has the deepest water. Remember to place the boat some 20 yards above the obstruction, but also take into account that you have to drop your anchor farther upstream and leave room to drift back. The trick here is to figure out where you want the boat to hang in the current and then drop the anchor so that you float back to the right spot and stop just when your hook grips the bottom.



You might have to try several times before you position the boat properly. Sometimes the current is swifter than you think and you need to let out more anchor line. Sometimes the current takes you unexpectedly away from the obstruction, too far to the left or right.

Sometimes you'll end up too close to the structure. Sometimes your anchor catches quickly, leaving you too far from the spot you've chosen. When these difficulties crop up, keep trying and don't settle for an inferior fishing position.

This anchoring tactic also works near islands and grass beds. The shad sometimes rest on the downstream sides of these spots, and when they're ready to continue moving upstream, they'll come out of the rest area on either side of the structure.

Remember that a good idea is to anchor so that you can place your darts on the edge of a run, the shad's commuter route. In all but the highest river conditions you can find the shad in these places.

Fast water

Don't dismiss fast water as too shallow and therefore unproductive. Some of the fastest shad fishing from a boat I've ever sweated through occurred a few miles south of Easton. We were anchored so that our darts hung along the upstream edge of a swift, narrow, bubbly deep run. Doubles were the order of the day. That fishing was so fast, it was uncharacteristic of the shad fishing with which we're most familiar. In an hour, I caught and released nine shad and hooked and lost four more. My fishing partner caught and released 11, losing three.

Anchoring

Anchoring is a vital, often underestimated part of successful shad fishing from a boat. I've seen a lot of unhappy shad anglers who picked great spots but couldn't get their inadequate anchors to hold. I know their disappointment because I also learned the hard way about choosing anchors for shad fishing.

I once tried a new plastic anchor that after one high-water trip looked as if it were three decades old. In many spots it just wouldn't catch the bottom. I've also tried mushroom anchors, cans of concrete and homemade contraptions, all of which did not work. I don't like to think about the number of

shad I've missed catching in terrific spots in which I just couldn't get those anchors to hold.

My preference is a Navy-type anchor that's one or two sizes larger than what's standard for my boat. I have a 15-foot



decked aluminum boat with a 28-horsepower jet-drive engine. I use a 15-pound Navy-type anchor. It holds the bottom in the worst conditions in which I'd ever stay out and fish for shad from a boat, so my confidence in this hook is high.

Check your anchor rode regularly, too. I donated an anchor to the bottom of the Delaware three years ago because I didn't check the anchor rode often enough and the anchor knot just slipped apart. In rough water, your anchor and rode get beaten as it drags and holds the bottom. Look it over often after every trip.

When you anchor your boat for shad fishing, always anchor from the bow, never from the stern. Stern anchoring can pressure the transom closer and closer to the waterline, and you could end up swamped.

Courtesy

Courtesy is another sign of experienced shad-fishing boaters. When you approach a group of boats at a spot, cut your engine. In this way you can pick a spot with the group or motor past them without causing a jarring wake and without disturbing the fishing.

If you decide on a spot near other anchored boats, remember that you have to account for the locations of the other boats when you drift into position to anchor. You don't want to end up too close to an anchored boat or disrupt someone else's fishing.

When you approach a group of anchored boats, check out the open areas downstream and upstream of the group. If you



figure out where the deepest spots are, where the runs are, where the edges are and the route the shad are likely to take upstream, you could put yourself into some hot action by anchoring on the group's upstream or downstream fringe.

When you anchor your boat in a group of other boats and begin fishing, keep an eye on who's catching fish. Are the boats in one area catching all the fish? Is most of the action upstream or downstream from the cluster of boats?

These clues can tell you where the best spots are. Move your boat into a productive position when someone calls it a day, and remember where the good spots are so that you can take that position on another day.

If you're in a group of anchored shad anglers, keep watching the anglers in the boats downstream. If they begin catching fish, a group of shad is likely heading your way, so work your darts more alertly and get set for hookups.

If you see anglers downstream catching fish and you remain fishless, you might have anchored outside of the lane the shad are using. Try moving a few yards either left or right. Sometimes changing your position by only a few yards this way can make a big difference.

A good way to determine your position at a hotspot on the river is to select two landmarks, not just one, and note your position according to the objects. This is called triangulating. For instance, I try to position my boat in one favorite place on the river by lining up directly across from a rock ledge on the New Jersey side and directly downstream from a narrow island.

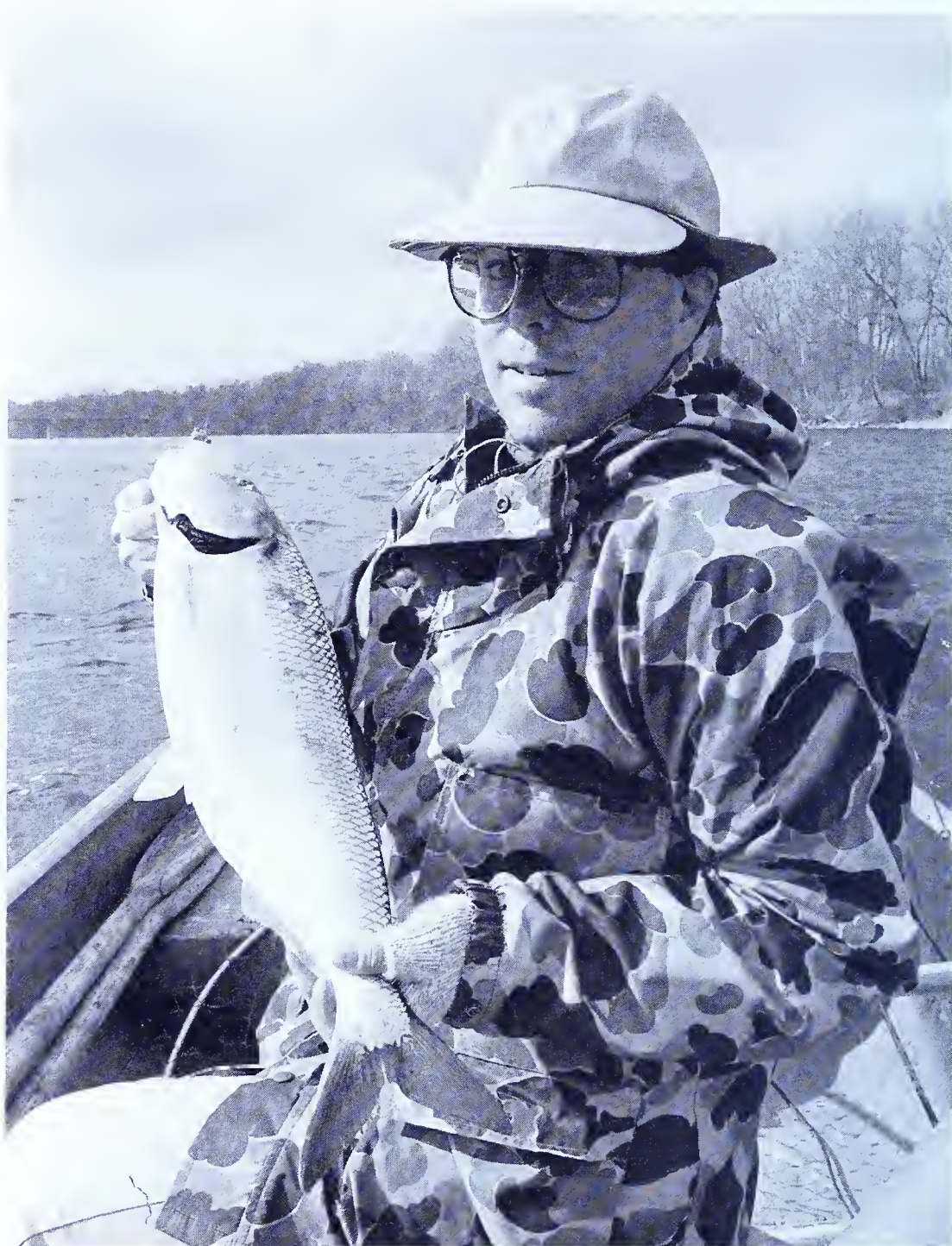
To pick a spot for late-season upriver action, think about where the fish would spawn in addition to intercepting the shad that are still moving upriver. Long, deep pools are productive spots because shad congregate there to spawn in addition to moving through these pools to travel farther upriver.

Sometimes I like to position my boat on the channel edge at the head of a long, deep pool. In this way, spawning fish fall prey to my darts as do fish that are still migrating.

Remember—sharpening your shad fishing skills and your boating skills can help you get the most out of fishing for shad from your boat. Use these ideas and raise your score!

**Pennsylvania
ANGLER**

Keep watching the anglers downstream. If they begin scoring, a group a shad is likely heading your way, so work your darts more alertly and get set for hookups.



Dead stick or jig?

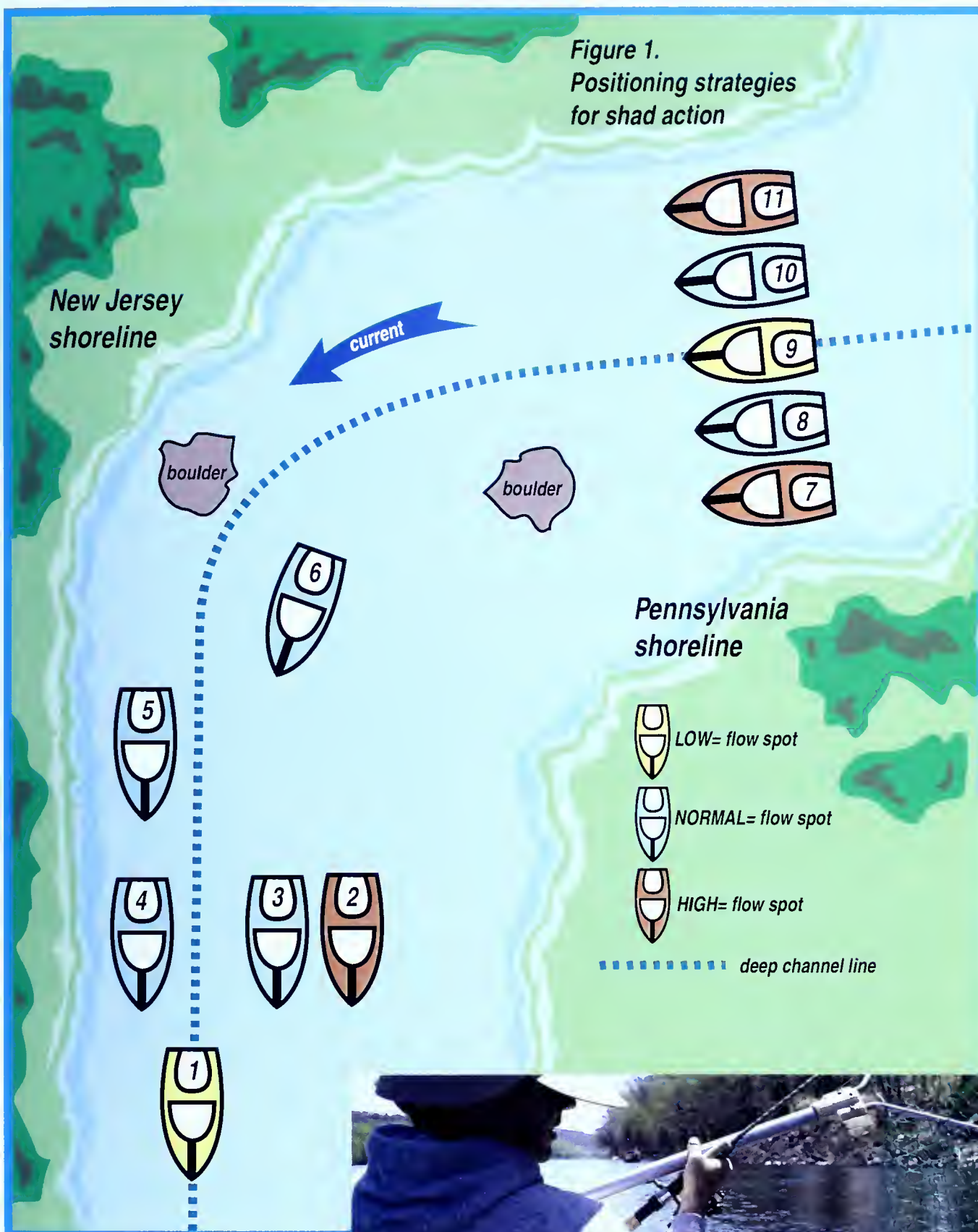
I work two rods in my boat. I've caught more shad while lightly jiggling the rods that I have while dead-sticking. So I hold one rod in each hand and alternately jig lightly and slowly. I can pick up strikes quickly with the rods in my hands this way, thus hooking more fish.

When the action slows and I tire, I put one or both rods down and dead-stick for a while.

I usually fish with only one partner in my boat. I fish in the stern-most spot, and my partner occupies the forward part. I set my lines so that they are only a foot or two apart, and I aim the rods directly astern on each side of the outboard. My partner holds his rods at about a 45-degree angle from the gunwale. In this way we avoid tangles—not all line foul-ups, but most.

We both fish one line longer than the other and we start out with different offerings. If one dart color scores more than others, and if either the closer offering or the more distant lure fools the fish, we switch to the winning combination.—AM

Figure 1.
Positioning strategies
for shad action



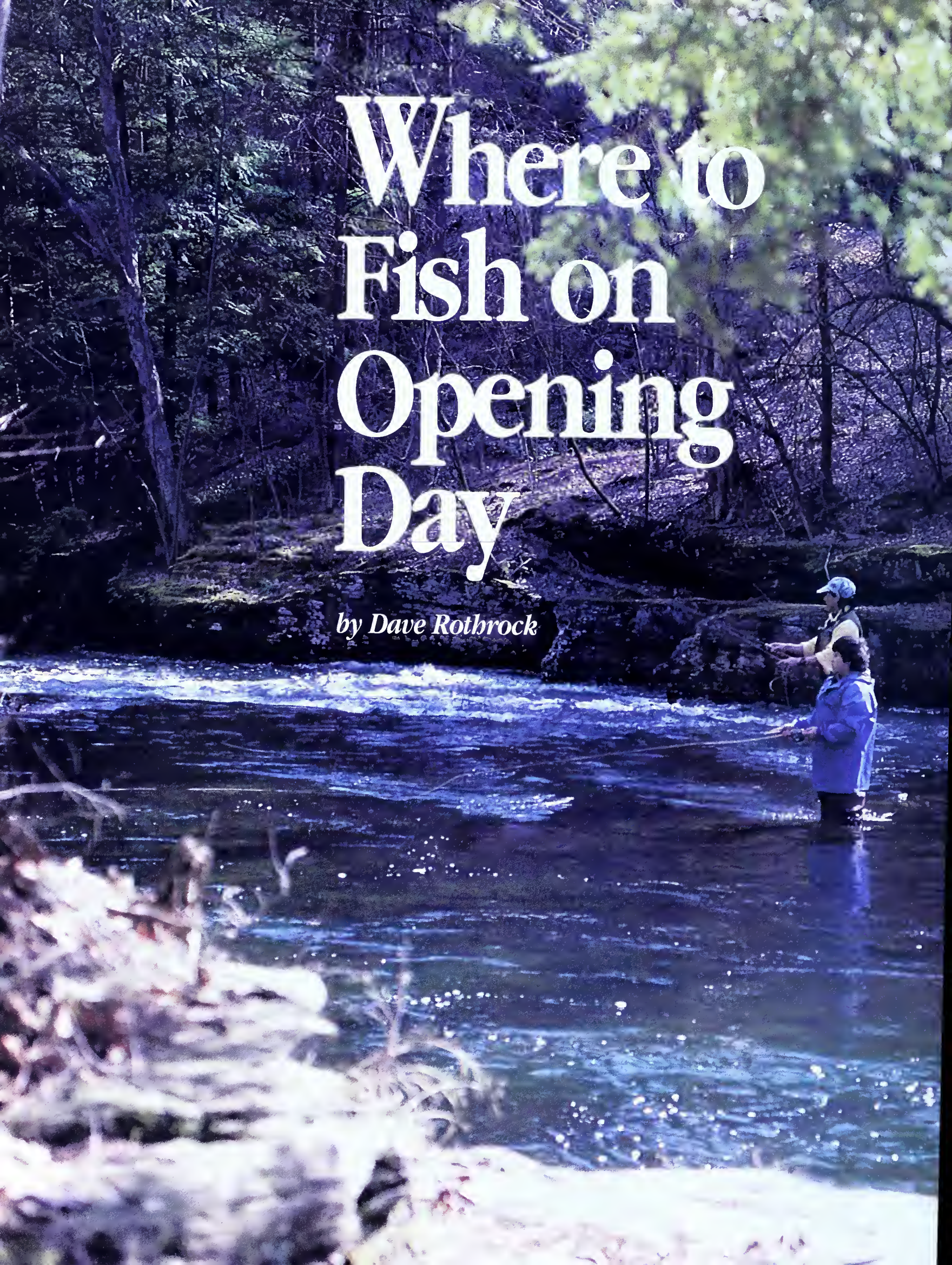
graphics- Ted Walke

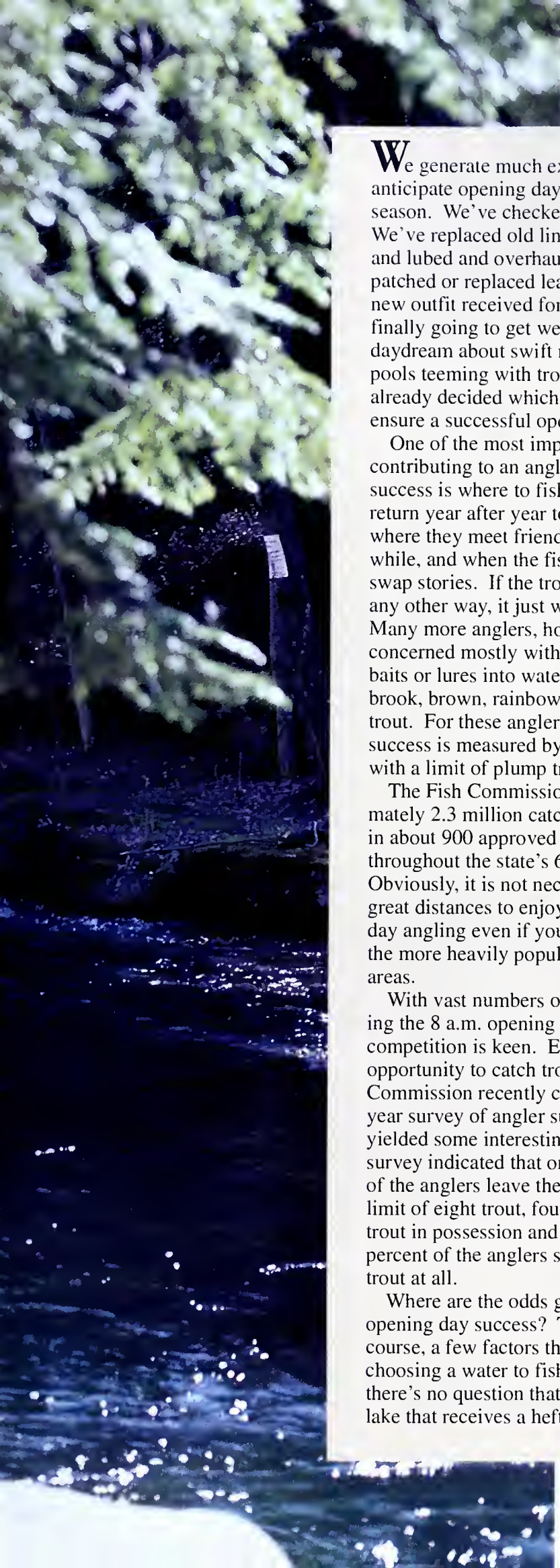
In low water, anchor right in the channel. In normal flows, hit the channel edges. In high water, move closer to shore, farther out of the channel.



Where to Fish on Opening Day

by Dave Rothrock





We generate much excitement as we anticipate opening day of the trout season. We've checked our equipment. We've replaced old lines, repaired rods and lubed and overhauled reels. We've patched or replaced leaky boots. The new outfit received for Christmas is finally going to get wet. As we daydream about swift runs and deep pools teeming with trout, we've likely already decided which bait or lure will ensure a successful opening-day outing.

One of the most important factors contributing to an angler's opening day success is where to fish. Some anglers return year after year to the same water where they meet friends, fish for a while, and when the fishing is over, swap stories. If the trout season begins any other way, it just wouldn't be fun. Many more anglers, however, are concerned mostly with casting their baits or lures into waters teeming with brook, brown, rainbow or palomino trout. For these anglers, opening day success is measured by a creel heavy with a limit of plump trout.

The Fish Commission stocks approximately 2.3 million catchable-sized trout in about 900 approved trout waters throughout the state's 67 counties. Obviously, it is not necessary to travel great distances to enjoy good opening day angling even if you live in one of the more heavily populated metropolitan areas.

With vast numbers of anglers awaiting the 8 a.m. opening of the season, the competition is keen. Each angler has an opportunity to catch trout, but the Fish Commission recently completed a three-year survey of angler success that yielded some interesting results. The survey indicated that only two percent of the anglers leave the stream with a limit of eight trout, four percent had six trout in possession and an incredible 65 percent of the anglers surveyed had no trout at all.

Where are the odds greatest for opening day success? There are, of course, a few factors that contribute to choosing a water to fish. However, there's no question that the stream or lake that receives a hefty planting of

trout, including some large brood trout and trophy-sized palominos, is likely to be at the top of the list. I found at least a few streams and lakes in every county that could be a potential opening day hotspot when it comes to numbers of trout. If you haven't decided where you will be for the season opener, here are more than 195 suggestions.

Northeast

When I think of northeast Pennsylvania, I think of the Pocono Mountains. I have many fond memories of some great fishing trips and this area has a great number of waters from which to choose. In Bradford County, Schrader Creek flows through forested areas, most of which lie within state game lands. Much of Schrader Creek is accessible only by walking in on a game land road. Towanda Creek has some nice pools and deep runs that can hold good numbers of trout. For anglers who enjoy still waters, Sunfish Pond can be a productive opening day choice.

In Carbon County, Aquashicola Creek receives a hefty planting of trout for the season opener. Other good streams include Buckwa Creek and Pohopoco Creek below Beltzville Dam.

Columbia County's Fishing Creek is known for its good trout fishing, and with deep pools and productive riffles, many anglers choose this stream for opening day action. Two other streams, Little Fishing Creek and Roaring Creek, should provide good angling. Briar Creek Lake can be productive for still-water anglers.

In Lackawanna County, my choice for opening day is the Lehigh River. This river contains some inviting water flowing through near-wilderness settings. Other good opening day choices are the Lackawanna River, Roaring Brook and Chapman Lake.

Luzerne County has several streams worthy of an angler's attention. Harvey Creek is one of the county's most well-known streams. This stream receives heavy pre-season stocking and access is very good throughout most of the 13 miles of stocked water. The Lehigh River below Francis E. Walter Dam is

photos by the author

challenging angling. It is large water and wading is difficult, but for the angler willing to take his time and fish slowly and carefully, the rewards can be great. Other good opening day streams include Nescopeck Creek and Pine Creek. Still-water anglers should consider Irena Lake and Moon Lake.

In Monroe County, Bushkill Creek has been my choice for opening day in the past. This stream has some of the most picturesque water of any stream in the Pocono Mountains. Another good bet is Brodhead Creek, and other top streams are Pocono Creek, McMichaels Creek and Tobyhanna Creek.

Northumberland County anglers can find good numbers of trout awaiting their opening day fare in Mahantango Creek.

In Pike County, the Lackawaxen River is popular with opening day anglers. This stream is large and wading can be difficult.

Many anglers are familiar with the Loyalsock Creek in Sullivan County. Because this stream is large, opening day angling on the "Sock" can be an enjoyable experience. Other good choices are Little Loyalsock Creek and Hunters Lake.

The East Branch Dyberry Creek in Wayne County can provide very good angling for the season opener. With easy access this stream is very popular.

In Wyoming County, Bowmans Creek has more than 17 miles of stream accessible to the opening day angler, and it is one of the better choices in the area. Other top streams are Mehoopany Creek South Branch and Tunkhannock Creek. For the still-water angler, Lake Winola is a good choice.

Southeast

The southeast area of the Commonwealth, although much more heavily populated, still has some dandy opportunities for the opening day angler. In Berks County, Tulpehocken Creek is a good-sized stream, and unless stream levels are high, wading is easy. Each year anglers catch some large trout in the "Tully." Maiden Creek and Manatawny Creek receive generous pre-season allocations of trout. Scotts Run Lake is popular with still-water anglers.

In Bucks County, the Delaware Canal is a good choice along with Lake Luxembourg and Levittown Lake.

Chester County's French Creek is



stocked for 14 miles. It draws many anglers from the surrounding suburban areas, but it offers some good fishing.

Ridley Creek, less than 20 miles from Philadelphia, provides some fine opening day angling in Ridley Creek State Park. Two other Delaware County streams, Chester Creek and Darby Creek, also produce well for area anglers.

For opening day fishing in Lancaster County, Big Beaver Creek, Conowingo Creek, Hammer Creek, Middle Creek and West Branch Octoraro Creek are the top choices.

In Lebanon County, Quittapahilla Creek and Stovers Dam offer productive angling opportunities.

Little Lehigh Creek in Lehigh County has saved opening day for me in the past. I can remember drawing a blank on a Pocono Mountain stream in the morning and duping several Little Lehigh Creek trout in the afternoon. This stream flows for several miles through the Allentown Parkway and the best angling is found here. Jordan Creek is another Lehigh County stream worthy of consideration.

Montgomery County's Skippack Creek receives heavy pre-season stocking and provides good opening day action.

In Northampton County, Saucon Creek is my pick. Other good streams are Bushkill Creek and Hockendauqua Creek. For still-water action, try Minsi Lake.

Wissahickon Creek and Pennypack Creek in Philadelphia County are popular streams with area anglers.

Schuylkill County has Pine Creek, lower Little Swatara Creek and Deep Lake for good opening day fishing.

Northcentral

In northcentral Pennsylvania anglers can open the season in some of the most scenic areas of the state. There are many fine trout streams here. In

Cameron County, Sinnemahoning Driftwood Branch, Sinnemahoning Creek First Fork, and Sinnemahoning-Portage Creek are top opening day bets. For still-water angling try the George B. Stevenson Dam.

Centre County has several worthy waterways. Bald Eagle Creek is stocked for more than 20 miles and it is very popular. Penns Creek is another opening day favorite. Other streams that can be generous to the opening day angler are Black Moshannon Creek and Sinking Creek.

In Clearfield County, Little Clearfield Creek and Medix Run receive hefty pre-season stockings of trout.

Kettle Creek in Clinton County is well-known for good opening day angling. Young Woman's Creek Left Branch is another top producer. Still-water anglers do well at Kettle Creek Lake.

In Elk County, Bear Creek flows through an area of the Allegheny National Forest and there is limited road access. Other good streams include Big Mill Creek, Little Toby Creek and the Clarion River.

Lycoming County has several streams to consider for an opening day outing. Little Pine Creek, Loyalsock Creek and Lycoming Creek are all popular streams on opening day. Rock Run is one of the most scenic streams in the region. Other good streams include Larry's Creek and Muncy Creek.

In McKean County, Kinzua Creek, Potato Creek and Tionesta Creek East Branch are top streams for the season opener.

Several streams in Potter County receive generous plantings of trout. The Allegheny River and Kettle Creek are two well-known streams in the area. Other top waters are Pine Creek, Sinnemahoning Creek East Fork, and Lyman Lake.

In Snyder County, Middle Creek is a top producer for opening day.

Tioga County's Pine Creek is large and the section that flows through Pennsylvania's Grand Canyon provides the angler with an opportunity to catch trout in a unique setting. Other top choices include Mill Creek, Beechwood Lake and Lake Hamilton.

In Union County, the lower section of Penns Creek is a large stream that holds plenty of trout. White Deer Creek and Rapid Run are all good choices for area anglers.

Southcentral

Southcentral Pennsylvania is characterized by rolling hills and farmland with lush, green fields and grazing cattle. However, there are many dandy streams and lakes in this region to consider for the trout season opener. Three streams in Adams County worthy of angler attention are Conewago Creek, Conococheague Creek and Opossum Creek.

In Bedford County, Bobbs Creek has a section that flows through state game lands and has no road access. For the angler willing to walk, this section can be productive. Other good streams include Cove Creek, the Juniata River Raystown Branch, Town Creek and Yellow Creek.

Canoe Lake and Clover Creek in Blair County receive good numbers of trout for the season opener.

In Cumberland County, Yellow Breeches Creek is a very popular stream and some large trout are taken from this waterway. For still-water anglers, Laurel Lake and Opossum Creek Lake are top producers.

Dauphin County has several miles of streams teeming with trout. Clarks Creek, Powells Creek and Wiconisco Creek are among the best. Other good choices are Manada Creek and Stony Creek.

Conococheague Creek West Branch in Franklin County offers over 20 miles of prime opening day fishing.

In Fulton County, Cove Creek and Little Tonoloway Creek are top choices for success. Cowans Gap Lake is heavily stocked and should produce well.

In Huntingdon County, Standing Stone Creek has good numbers of trout awaiting the offerings of opening day anglers. Tuscarora Creek is another good bet.

Juniata County doesn't have a large number of trout waters, but two top producers are Cocolamus Creek and East Licking Creek.

Honey Creek in Mifflin County is stocked for about 10 miles and parts of this stream flow through Bald Eagle State Forest and Reeds Gap State Park.

In Perry County, Buffalo Creek and Sherman Creek are worthy of opening day attention.

Several York County streams have great potential for the season opener. Codorus Creek, Codorus Creek East Branch, Fishing Creek, Muddy Creek

and Muddy Creek North Branch receive generous pre-season stocking. For still-water anglers, try Hanover Water Company Dam.

Northwest

In Clarion County, top opening day producers include Leatherwood Creek, Mill Creek and Cathers Run.

Crawford County's Oil Creek has come a long way from a stream heavily polluted during the oil boom era to one of the most popular trout streams in this region of the state. Other top waters are Oil Creek East Branch, Little Sugar Creek, Sugar Creek East Branch and Pine Creek.

In Erie County, Elk Creek is my choice for opening day. In addition to the trout stocked for the season opener, anglers may find themselves in a battle with a salmon or steelhead that has migrated upstream from Lake Erie. French Creek and Lake Pleasant are other productive waters.

Tionesta Creek in Forest County is a large stream that flows through the Allegheny National Forest. Some big trout are taken here each year. Other good streams are Salmon Creek and Spring Creek.

Jefferson County streams that should produce well are Mill Creek, Little Sandy Creek and Sandy Lick Creek. Some sections of these streams are not accessible by road.

In Lawrence County, Little Beaver River North Fork, Neshannock Creek and Bessemer Lake are top waters.

The Shenango River and Little Shenango River are good choices for Mercer County anglers.

In Venango County, Oil Creek, Sandy Creek and Sugar Creek are worthy of opening day attention.

Brokenstraw Creek and Little Brokenstraw Creek are very popular among anglers in Warren County. Still-water anglers can do well at Chapman Lake.

Southwest

Pittsburgh area anglers should experience very good success at Bull Creek, Deer Creek and North Park Lake in Allegheny County.

Armstrong County top opening day streams include Cowanshannock Creek, Pine Creek South Fork and Buffalo Creek.

In Beaver County, Little Beaver River North Fork receives a hefty planting of

trout for the season opener. Anglers who enjoy lake fishing have Brady Run Lake and Hereford Manor Lake.

Two streams at the top of the list for Butler County are Thorn Creek and Slippery Rock Creek.

Cambria County best bets are Blacklick Creek North Branch and Chest Creek.

Opening day anglers can find good numbers of trout awaiting them in Dunbar Creek, Indian Creek, Dunbar Creek Lake and Virgin Run Dam in Fayette County.

Several years ago Greene County had no approved trout waters for local anglers. Today, opening day hotspots include Whitely Creek and Duke Lake.

Indiana County's Little Mahoning Creek and Yellow Creek should produce well for the season opener.

In Somerset County, Laurel Hill Creek and Wills Creek are stocked for almost their entire lengths. These streams, in addition to Brush Creek, Casselman River and Clear Shade Creek, are top opening day streams.

Still-water anglers have Canonsburg Lake and Dutch Fork Lake in Washington County.

In Westmoreland County, the top streams for opening day include Loyalhanna Creek and Turtle Creek. Lake anglers can choose Keystone Lake, Donegal Lake or Lower Twin Lake.



Increasing the odds

Now that you know that good numbers of trout await your opening day efforts, how can you increase the odds for success even more? First, except for a flurry of activity those first few moments after the opening bell, stream anglers usually do best by drifting their baits or working their lures close to the stream bottom. For still-water anglers locating the depth at which the trout are cruising is a matter of working from the bottom up. Periodically vary the depth at which you are fishing until you find action.

Although there may be times when one bait or lure proves more effective than another, many times lack of success is caused more by poor presentation than anything else. Proper presentation of baits and lures at the level where trout are holding can dramatically increase your odds for success.—DR.

The Dark Robber Fly



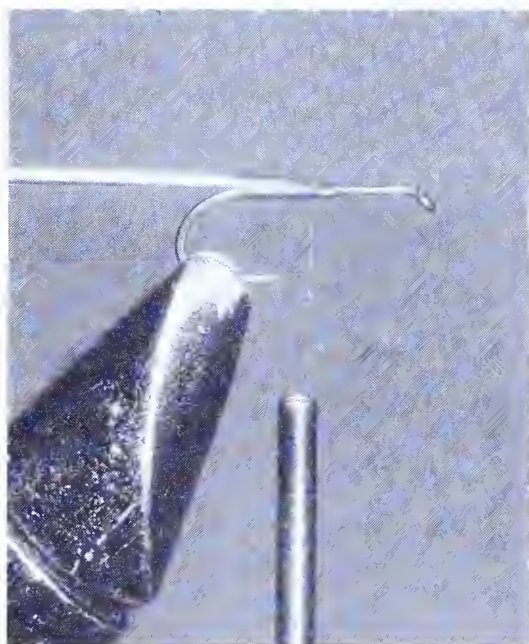
by **Chauncy K. Lively**
photos by the author

Among nature's insects, the robber fly is the quintessential villain. Not only does it snatch unsuspecting victims from tree trunks, but it dive-bombs insects in flight as well, including its arch rivals the dragonflies. Its insatiable appetite keeps the fly on the prowl, and woe to any bugs in its path. Mayflies, bees, moths, midges, wasps and hornets are all fair game.

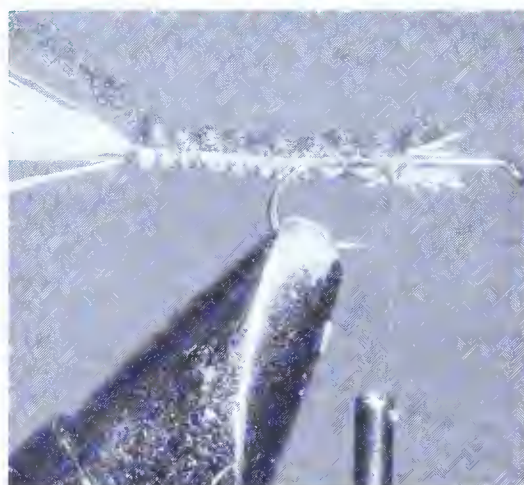
About 3,000 robber fly species are known to entomologists, and their appearance may vary broadly—from bee-like to a rough resemblance to crane flies or damselflies. Among anglers they are perhaps the least-known terrestrials of consequence to trout.

I first noticed them about 30 years ago and in the February 1974 *Angler* I described a Robber Fly pattern representing the naturals I had seen in Michigan. The pattern was accepted among anglers and I was pleased to hear of anglers' successes with it on a variety of trout streams. In fact, several well-known commercial tiers included the pattern in their inventories.

However, in speaking with fellow fly anglers I was surprised to find that some thought "Robber Fly" was merely a catchy-sounding name I had attached to the pattern. But when I explained that robber flies were indeed real insects and when I described



1 Tie in the thread at the mid-shank and position a size 7 needle over the shank with the point at the tie-in. Bind the needle to the top of the shank with firm, close turns back to the bend. Then wind the thread forward to the original tie-in.



2 From a sheet of 1/8-inch white Evasote foam, cut a strip 1/16-inch thick. Tint the strip with a dark-brown marking pen. Then cut a sparse bunch of deer hair and position it over the shank and the needle. Tie in the hair at the mid-shank and wind the thread in spaced turns back to the bend. Then continue in spaced turns over the needle behind the bend for a distance equal to the shank length. Wind the thread forward to the mid-shank, tie in the foam strip and bind it over the hair. Then return the thread to the mid-shank. With a razor blade trim the excess hair and apply a drop of lacquer to the cut end.



3 Wind the foam strip forward in close turns and tie it off at the mid-shank. Trim the excess. Tie in four strands of peacock herl by their butts at the mid-shank and make a twist by spiraling the working thread around the herl for a length of two inches. Then wrap the herl twist around the fore end of the body and forward to form a short thorax. Tie it off and trim the excess.

their appearance, there would invariably be a flash of recognition that they had encountered them, too, unaware of their identity.

The original Robber Fly pattern has an extended body of grayish-tan deer or elk hair, a thorax of peacock herl, wings of deer hair and interwound brown and grizzly hackles. It was dressed to follow the shape and general color of the naturals that I had first observed. However, before long I began to see others with similar profile and size but darker. These robber flies had a dark grayish-brown body—sometimes banded with yellowish striations—and the legs were dark gray with a brownish cast.

This prompted the dressing of the Dark Robber Fly as a companion to the original pattern, and the two have since occupied equal space in my fly box.

At first I thought of these insects as strictly hot weather flies, as one generally regards grasshoppers or beetles. But in recent years I've seen them on the wing well into October. Early one fall morning following a bitter-cold night, I found two robber flies on a tree trunk, immobile and appearing half-frozen. I was fairly certain that as soon as the sun came out they'd be in the air again, searching for creatures to victimize. Their

ability to withstand cold seems to be in keeping with their tough-guy image.

Initially I used brown-dyed deer hair for the extended body of the Dark Robber Fly and it served this purpose adequately, despite the stiffness inherent in bound-hair extended bodies. However, a few years ago I discovered the usefulness and versatility of Evasote foam, and it has become my favorite material for such bodies. Although it is available in several dyed colors, it's a simple task to tint white Evasote any color with permanent marking pens. It should be noted that this material (or others with similar characteristics) is often found in fly shops under the name "Fly Foam." It is available in sheets of about 1/8-inch to 5/32-inch in thickness, from which working strips can be cut.

In this updated Dark Robber Fly pattern, I dress the extended body in much the same fashion as I dress the Foam Inchworm pattern I described in the July 1989 *Angler*. To provide a temporary rigid base for building the body, first lash a needle to the hook. A compressible "spine" of deer hair underlies the Evasote strip, furnishing just enough rigidity to prevent the foam from collapsing when the needle is withdrawn. At the same time, a desirable degree of flexibil-

ity is retained in the extended body.

A small needle, say, size 7 or 8, is easier to use than large sizes. After you wrap the Evasote strip to form the abdomen, tie it off and in a subsequent step withdraw the needle.

I dress the pattern on a size 14 regular-shank dry fly hook, but that's a personal choice. Some tiers prefer size 12.

If you haven't tried flies with extended bodies and if you are a little dubious about their hooking qualities, I think you'll be surprised at the capabilities of the Dark Robber Fly.



Dressing: Dark Robber Fly

Hook: Size 14, regular shank, fine wire.

Thread: 6/0 brown prewaxed.

Spine: Sparse bunch of deer hair (any color).

Body: 1/16-inch x 1/8-inch Evasote strip tinted dark brown.

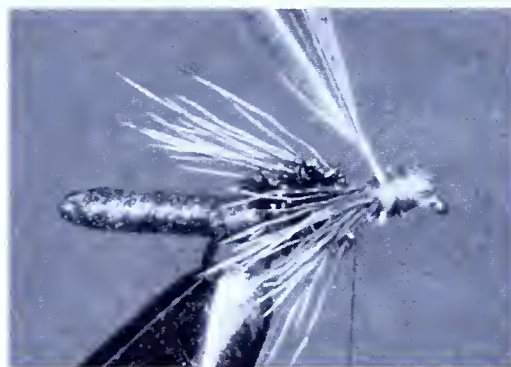
Thorax: Four strands of peacock herl.

Wings: Gray deer hair.

Hackle: One brown, one medium dun.



4 For wings, tie in gray deer hair in front of the herl and wind it forward in six close turns. With pliers slowly withdraw the needle.



5 Split the hair wing and wind between to form a flat "V." Bring the thread forward over the previous winds. Make a foldback head by gathering the hair extending over the eye into a tight bundle. Cross the dubbing needle over the hair bundle behind the eye and fold the hair up and over it, pointing the butts toward the rear. Hold the hair in this position and withdraw the needle. Bind the hair securely and trim the butts with a razor blade, beveling the cut toward the wings. Select one brown and one medium dun hackle with fiber lengths 1 1/2 to two times the hook gape. Strip off the webby lower fibers and tie them at a right angle to the shank, dull sides toward the eye.



6 Wind the rear hackle to the rear of the hair head and tie it off. Then wind the second hackle through the turns of the first and tie it off. Trim the excess hackle tips. Bring the thread under the head to the eye and whip-finish. Finally, lacquer the finish windings.

Adopting a Lake

by John W. McGonigle
photos by the author

Fishing not good enough to suit you? Some people complain about it, others do something about it. Improving the fishing is exactly why the West Chester Fish, Game and Wildlife Association (WCF, G&W) "adopted" Marsh Creek Lake, near Eagle.

Most people know about the Fish Commission program in which groups adopt streams. But sportsmen's clubs and conservation groups can also "adopt" a lake. They can patrol for litter, add underwater structure or cut dead lakeside trees that fall into the water and provide shade and cover for fish.

Project chairman Ed Dunne approached the club's executive committee more than a year ago with the idea of adopting the nearby lake to help improve the fishing in this heavily fished southeastern Pennsylvania lake. Dunne's enthusiasm was contagious and the executive committee gave him the go-ahead.

Both the Fish Commission and the Department of Environmental Resources (DER) required the club to obtain permits to begin the work. DER has responsibility for the state parks system, of which Marsh Creek Lake is a part.

Dunne met with Dave Houser, chief of the Commission's Adopt-a-Stream Program. They surveyed Marsh Creek Lake, selecting possible sites for various types of fish structure. They created a preliminary plan, and the project was under way.

"The Adopt-a-Lake Program is actually a part of the Adopt-a-Stream Program started by the Fish Commission in 1972," says Houser. "Only in the last several years has the 'lake' part of the program taken off." Currently only 35 lakes are enrolled in the program.

The group decided to install two types of fish structures in Marsh Creek Lake, one especially for channel catfish, the other a multipurpose structure.

Russ Maurer, aquatic biologist for DER, credits Houser with the creation of the porcupine brush crib structure placed in Marsh Creek by the WCF, G&W Association. "The structures hold up well," says Maurer, "and they fulfill several needs."

The pyramid-shaped crib structures, unique to Pennsylvania, are built with two-by-two lumber, with an internal bottom ballast of cinder blocks to hold them in place. The structure provides protection for young-of-the-year bass, which Houser feels are "hammered" by adult fish. It also attracts panfish and other gamefish because of the availability of forage fish that are feeding on algae and plankton growing on the cribs. Placed in water depths ranging from 10 to 15 feet, the cribs also provide fish with shade.

"The wooden cribs should last at least 10 years and will attract fish much better than tires that were sometimes used in the past," says Maurer.

Two specially equipped boats were put into service, one from the Fish Commission and one from DER, to place the crib structures. Rollers were installed on the forward deck of each boat to facilitate placing the structure easily and safely.

After reaching the pre-determined sites, the cribs were untied and pushed off the rollers.

Nesting container

The second type of structure used at Marsh Creek by the WCF, G&W Association is a catfish nesting container. Made by connecting two plastic buckets and opening one end, the structures fulfill the needs of nesting channel catfish.

The nest containers are placed in water depths of three to five feet and 10 to 15 feet apart, with the single opening facing deeper water. This placement lets the male catfish guard the nest after the female has laid the eggs. It also provides cover for the young catfish until they are better able to fend for themselves.

To initiate the program, 18 crib structures were installed last year. This year an additional 40 crib structures were installed, along with 55 channel catfish nesting containers.

On the catfish containers the club had help from Wayne Riddle of Wayne, PA, who coordinated the construction of nesting containers as part of an Eagle Scout project. Riddle and six other scouts built 30 of the catfish nests used to date.

"Channel catfish are very specific spawners," says the Fish Commission's Houser. "They need something to get inside of, with only one hole for protection." These nesting containers fulfill all the channel cat's requirements.

Several dead trees at lakeside are slated to be felled into the lake, with the base of the trees cabled to the stump to prevent drifting. The fallen trees will provide both shade and cover for several species of fish in Marsh Creek.

The habitat work done on Marsh Creek is sure to improve fishing, and park superintendent Larry Smith is very pleased. "The lake was pretty well stripped of cover when it was built," says Smith. "The club is providing something we didn't have before."

Smith is also happy with the level of cooperation among all parties involved, WCF, G&W; DER; and the Fish Commission; as well as the specific work done. "Not only is the methodology of the habitat project better, but the cooperation we're getting is great," Smith says.

Ed Dunne's crew plans to add to the number of cribs and nesting containers each year. Fish locators show that fish are already using many of the cribs. Surveys, both formal and informal, will be undertaken to track the success of the work done so far.

"I think it's great to see the efforts of WCF, G&W labor bearing fruit," says Houser. "The coordination among the club and the two involved agencies is making the project go very well," he says.

It's too soon to tell if the fishing on Marsh Creek Lake has improved because of the Adopt-a-Lake Program, but all indications point in that direction.

"Working to improve things sure beats sitting around and hoping," Dunne says.



Adopt-a-Stream Lake Projects

<i>Water Name</i>	<i>County</i>	<i>Cooperator</i>
Allegheny Reservoir	McKean	Kinzua Fish & Wildlife Association
Allen Holman Lake	Perry	DER Little Buffalo State Park
Auburn Dam Lake	Schuylkill	Tamaqua Bass Club
Beechwood Lake	Tioga	Westfield Rod & Gun Club
Blue Marsh Lake	Berks	Berks Bass Masters
Cowanesque Lake	Tioga	U.S. Army Corps of Engineers
Crooked Creek Lake	Armstrong	U.S. Army Corps of Engineers
Cross Creek Lake	Washington	Washington County Parks & Recreation
Foster Joseph Sayers Reservoir	Centre	Bald Eagle State Park
George B. Stevenson Dam	Cameron	DER/Sinnemahoning State Park
Glendale Lake	Cambria	Patton & Ashville Bass Clubs
Hammond Lake	Tioga	U.S. Army Corps of Engineers
Hemlock Lake	Indiana	Indiana County Parks
Hopewell Lake	Berks	DER/French Creek State Park
Hopewell Lake	Beaver	Hopewell Township
Lake Arthur	Butler	Moraine State Park
Lake Chillisquaque	Montour	PA Power & Light Co. - Montour Preserve
Lake Marburg	York	Codorus State Park
Lake Redman	York	York County Parks Department
Lake Wilhelm	Mercer	M. K. Goddard State Park
Lily Lake	Luzerne	Nanticoke Conservation Club
Marsh Creek Lake	Chester	West Chester Fish/Game & Wildlife Assn., Inc.
Mauch Chunk Lake	Carbon	Carbon County Parks & Recreation Commission
Northmoreland Lake	Westmoreland	Westmoreland County Dept. of Parks & Rec.
Octoraro Reservoir	Lancaster/Chester	Chester Water Authority
Pinchot Lake	York	Gifford Pinchot State Park
Pymatuning Reservoir	Crawford	Pymatuning State Park
Raystown Lake	Huntingdon	U.S. Army Corps of Engineers
Rose Valley Lake	Lycoming	Williamsport Bass Masters
Shawnee Lake	Bedford	Shawnee State Park
Shenango Lake	Mercer	U.S. Army Corps of Engineers
Tuscarora Lake	Schuylkill	DER & Tuscarora State Park
Twin Lakes (Upper Lake)	Westmoreland	Westmoreland County Dept. of Parks & Rec.
Woodcock Creek Lake	Crawford	U.S. Army Corps of Engineers—Pittsburgh Dist.
Yellow Creek Lake	Indiana	Allegheny Mountain Bass Anglers

EARLY SEASON CADDIS ACTION

BY ED HOWEY
PHOTOS BY THE AUTHOR



PATTERNS

Pupa

The tinsel ribbing and sparkle yarn veiling pupal styles are described below. The ribbed design includes wings. The other does not. An important element of both types is a few turns of soft partridge hackle to simulate trailing legs and antennae. Tie up some of both types in colors and sizes appropriate for streams you plan to fish in the early season.

Hook: Partridge K12ST sedge hook, sizes 12, 14, 16, 18.

Thread: Same as body color, 6/0.

Weight: .032 or .016 lead wire. Wrap one layer on rear half of hook.

Body: Fuzzy dubbing, black, blackish-brown, olive/green, cream/tan.

Ribbing: Silver tinsel (best on 12s and 14s), or sparkle yarn veiling thinly encased body.

Wings: Short quill feather sections tied to sides of body, dark or light gray, or none.

Legs: Mottled partridge. Throat type if wings; full turns if no wings.

Head: Peacock herl.

Adult

For the hair-wing design adult caddis either deer or elk hair or appropriate texture and color may be used. For all types, the body is poly dubbing, and the hook style is 94833, 94840 or equivalent. Include a green egg sac on some of your cream/tan bodies. Use but a couple of turns of very short hackle. Affix the wing so that the lower fibers lay alongside and parallel to the body.

	Grannom	Little Black	Olive/Green	Cream/Tan
Hook:	12	16,18	14,16	14,16
Body:	blackish brown	black	greenish olive	tannish cream
Wing:	dark gray	dark gray	tan	tan
Hackle:	dark brown	black	light brown	ginger
Thread:	black	black	olive	tan



A dozen trout dimpled the boulder-studded flat where Penns Creek swirls quietly by the weathered R. B. Winter cabin. On this sunny mid-April day, such activity might signal a healthy hatch of Quill Gordons or Hendricksons, the traditional mayflies of early spring. But the erratic flight of airborne insects hinted that these were no mayflies. Dozens fluttered by just out of reach, but one individual made a mistake, and a speedy swipe of my mesh baseball cap snared the specimen for an inspection that confirmed my suspicions. No mayfly at all, but a fat, juicy, early season caddis!

The importance of caddises in the trout's diet continues to grow as streams, even relatively secluded ones such as Penns, suffer the effects of soil erosion, and chemical and wastewater pollution. The disasters decimate insect populations, especially mayflies. As a result, species hallowed in American fly fishing lore are not nearly as plentiful as they once were.

Caddis flies, apparently a hardier breed, do better. From the Delaware to the Allegheny, in freestone streams and limestoners, caddis species survive, and in the early season, mid-April to mid-May, many stream bottoms teem with their larvae. Those on the early season menu fall into four general types: Little Black Caddis (*Chimarra*)—sizes 16 and 18; Cream/Tan Caddis (*Hydropsyche*)—sizes 14 and 16; Olive/Green Caddis (*Rhyacophila*)—sizes 14 and 16; and Grannom (*Brachycentrus*)—sizes 10 and 12.

Despite the likelihood that every approved trout stream in the Commonwealth harbors caddis populations, not all include these early season types. The best way to learn what lives in the streams you fish is to get out and observe. In his recent book, *Pennsylvania Streams and Their Hatches*, Charles R. Meck has compiled some excellent local knowledge on streams all across the state. Check it out as a starting point.

Complete change

Unlike mayflies, caddises undergo a complete metamorphosis from larva through pupa to the adult stage, and at any given time all three stages may be available to the trout. But most of the time trout respond best to the pupal and adult patterns. The benefit of carrying both these stages was illustrated by a recent incident on Fishing Creek near Benton.

After a listless morning, a tan-winged caddis began to emerge sporadically, fish began to rise, and a dry fly floated over a feeder yielded a hook-up more often than not. But as the intensity of the hatch increased to a blizzard of buzzing insects, the evidence of rises vanished, and the floating fly produced no response.

This happens because trout switch from feeding on the surface to picking off the handier pupae rising from the bottom. So I abandoned the surface and changed to a weighted pupal imitation that fooled a half-dozen nice trout during the next hour—trout that would not even look at a floater.

Most fly shops carry both pupal and adult caddis imitations in several designs. For the pupa, I'm partial to weighted fuzzy, soft-hackled patterns that give off a bit of sparkle. Most store-bought flies meet all these requirements except the last, which means you'll need splitshot to get the fly down. If you tie your own flies you'll be able to build in weight.

The tying instructions describe two pupal types—one that uses mylar tinsel to get the flash effect, another that uses sparkle yarn. The yarn is probably the best choice for the smaller sizes because it is easier to work with.

Several variations of the adult imitation have evolved over the years—the Elk Hair Caddis, the Goddard Caddis, the Henryville Caddis and others. Of these, the Elk Hair version, popularized by transplanted Penn-

sylvanian Al Troth, enjoys the greatest following. Again, this fly has the virtue of simplicity. Some say it performs better when tied without hackle, and though this may be true in some circumstances, I favor hackle, if used very sparsely—just two or three turns with fibers not longer than the hook gape. The hackle suggests legs and does help float the fly.

At the onset of a caddis hatch we're often confronted with sporadic, splashy rises even though no naturals appear on the surface. The reason for this is that the pupae move quite swiftly in their gas-powered rise to the surface, and trout in hot pursuit get up such a head of steam that they often clear the water while making the capture.

Before the pupa gets headed upward, however, it can be carried along by the current for some distance. So the presentation should start with a toss far enough upstream to let the weighted fly sink to the bottom. It works best when you can feel it bump along as it approaches your position. Then, as it moves past, the current will straighten the line, forcing the fly to the surface much like the ascent of the natural. A cast of two pupae fished in this manner puts one fly near the bottom and the other drifting free, a combination that has accounted for some of my best hold-over browns.

Fishing the adult version

Fishing the adult version on top works best when the fish are rising to surface-borne insects. Cast directly above a rise form or drift the floater through the area where trout are showing. Caddises make a commotion on the surface, scuttling shoreward when they reach the top. Simulate this action with slight twitches of the rod tip, especially toward the end of the drift. Drown the fly as it starts to swing, and twitch it across the current, allowing short, submerged drifts between twitches.

When fish show in response to caddis activity, it can be an exciting time, and a time when trout may not be too fussy. I've found that an up-wing Adams often does quite well under these circumstances.

But on that sunny April day when I found winter-hungry trout sipping floating Grannoms in the pool near the R. B. Winter cabin, I simply ranged up and down the shore, tossing a size 12 Elk Hair Caddis onto every rise I could reach. The reward was a half-dozen beautifully colored hold-over browns in about an hour of work. The largest nudged the 19-inch mark on my net handle.



Don't Miss the Bo



Joe Reynolds

■ The 1992
preseason
and inseason
stocking
schedule for
lakes includes
some
105 waterways
in 53 counties.



at on Opening Day

by Hank Nuwer

Harold McKee of Shippensburg had a problem a scant 15 minutes after trout season officially opened last opening day. He was on Opossum Lake, near Carlisle, and already he'd caught his daily limit. "I was a little upset because I still had all day to go," he complained.

Not surprisingly, none of his fellow anglers in his boat offered a shred of sympathy.

No one can guarantee that you, too, will fill your stringer in 15 minutes flat this season. What is guaranteed is that you won't have trouble finding a lake in your area that is abundantly stocked with trout.

April is a good time for trophy trout because they feed on spawning baitfish. Not coincidentally, April is a time of year when the Fish and Boat Commission has stocked its Pennsylvania lakes, and when the Commission's inseason program places even more catchable-size trout in the state's waterways.

In 1988, says McKee, he and some pals took six trout on opening day that were 20 inches or better. These are trout that grew big and fat by surviving one or more Pennsylvania winters.

Ride a palomino

Most fishermen specializing in boat fishing for stocked trout gather around fireplaces to argue the merits of rainbows versus browns. But McKee prefers catching hybrid palomino trout. "They bite like a brown trout, only they're really bright gold," he says. I usually catch about 12 in a year—they're a treat to me."

On McKee's wall is a beautiful palomino that is more albino-white than gold. Its most striking characteristic is a pink stripe on its side. "Some hatchery fish don't have perfectly shaped fins, but this one did and he's exceptional," boasts McKee.

He caught the palomino on the east side of 67-acre Opossum Lake, some 50 yards from shore. He was using a plastic tube lure on a jig head.

One day his father caught five palomino in a single day. "That was neat," he exults. Although he prizes such fish more for their beauty than size, he notes that they can grow big. McKee has hauled in palominos in the 20- to 24-inch range out of Opossum Lake.

A fisherman from the northwest part of the state, however, thinks that brook trout are equally appealing to the eye and much more of a challenge. While fishing Justus Lake, between Franklin and Oil City, Denny Wessell has caught 15-inch brook trout "with hooked jaws and fluorescent colors" that weigh about 1 1/2 pounds. "They are just outstanding but tough to catch," he says.

Invisible line

Whether you like your trout pink, brown or multi-colored is immaterial. You won't catch any of them if you tip your hand to the fish by using line thick enough to hang a buffalo. "Use the lightest possible line because of the clarity of the water on many Pennsylvania lakes," advises Denny Wessell. He uses an ultralight rig with four-pound, non-fluorescent line so that it doesn't spook fish.

Live baits

Live bait is just the thing to keep youngsters and beginning anglers from getting discouraged. Both nightcrawlers and meal worms can be effective if you fish them from a bobber, advises McKee.

He gets an argument from Denny Wessell, who says "the best bait year-round is the maggot," particularly when youngsters are fishing. In April, when predators are stalking baitfish on the spawning beds, he often opts for minnows. A small emerald shiner, in particular, provides irresistible forage for trout.

Artificial baits

When using artificial bait, McKee always tries to put his mind into the mind of the fish. His favorite tactic is to vary the speed of the retrieve until he sees what's working that day. With a spoon, for example, sometimes he cranks fast, sometimes medium-fast, and sometimes he even stops cranking to let the lure float a bit or flutter—whatever works.

He even varies the speed of the retrieve when using a spinner. On days when he sees trout chase his spinner only to stop short of actually taking it, he gives the lure a hard crank so that the bait looks as if it's running away from the fish. "Wham! He'll get on it because you've appealed to the instinct in the fish to get what's in front of him—if it's trying to get away, it's food," says McKee.

He also varies the colors of his spinners, although he invariably goes with small stuff, an eighth- to 16th-ounce only. Given one choice, he'll go with a black and silver spinner, but he's had success with a white one, a rainbow, and a yellow one with black dots.

He also likes to keep a fairly rigid rod while twitching the tip and vertical jigging with a spoon. For Pennsylvania's relatively shallow, calm lakes, he uses only a Swedish Pimple under a half-ounce. "It bounces around and fish like to eat it," says McKee, adding that he prefers to use the lure with a thin bobber.

Douglas Siska of Pecks Pond usually prefers live bait when fishing for trout, but some of the biggest fish he and others have caught have been on artificials—while they were gunning for stripers and walleye. "Four years back in a bass tournament, I was jigging and I nailed an eight- or nine-pound rainbow," he says.

In particular, he thinks that short diving plugs work well, but any surface lure can do the job at a given time, he stresses. He has a preference for Ripplin Redfins and several types of Rebel Pop-R lures. As a change of pace, Siska occasionally trolls silver or gold Rapalas—anything that imitates a minnow.

The artificial lure of choice for Denny Wessell is a metal spoon.

He notes that fly fishing can be just as successful from a boat as any other method. "Use anything that imitates a small baitfish in April," says Siska. He suggests starting with a Grey Ghost or Silver Streak. Other kinds of streamer flies with sinking line work well, too, he adds.

Fly fishing from a boat is often a successful method of going after elusive brook trout in Justus Lake, says Wessell. He says that both dry and wet flies work well for him—as long as he uses anything black in April.

Justus Lake and other lakes are known for their hatches of stoneflies in April. "They're size 14—not real small, not very big, either," says Wessell. As far as nymphs are concerned, a dark pheasant tail works well. He's also had success with black gnat flies.

The owner of a bait and tackle shop near Laurel Hill Lake, a trout hotspot that will reopen in April after a new breast was put on the dam for flood control, says that silver spinning lures work best for him. The owner, Larry Broadwater, also gets good mileage out of Dardevles, preferring either a red-and-white spoon or the yellow-and-red five of diamonds.

Where to find them

When you're out in your boat, look for spots in deep water that are adjacent to "shallow shelves," suggests Siska. The fish are either suspended in deep water or hunting along the shore.

Another idea is to check with local fishing experts to see if the lake you're fishing is spring-fed, says Larry Broadwater. "If the water's cold, they hang around the springs."

He also suggests that you keep your boat in the area where stocked creeks flow into the lake. "Laurel Hill Lake, for example, has two such creeks that converge at a single point in the lake. One of the creeks is fly fishing only," says Broadwater, who himself has hauled in a 22-inch brown trout. "You get fish that come down from there," he says.

1992 Preseason and Inseason Planned Trout Stocking for Lakes

County	Water	Brook	Brown	Rainbow	Total
Adams	Waynesboro Water Co. Res.	1,200	0	4,400	5,600
Allegheny	Deer Lakes	0	1,080	4,120	5,200
Allegheny	North Park Lake	0	3,540	15,160	18,700
Beaver	Brady Run Lake	0	5,100	11,900	17,000
Beaver	Hereford Manor Lake, Lower	0	4,100	14,800	18,900
Beaver	Hereford Manor Lake, Upper	0	2,800	6,600	9,400
Beaver	Raccoon Lake	0	2,600	10,500	13,100
Bedford	Beaver Run Rod & Gun Club Dam	0	0	400	400
Berks	Angelica Lake	350	300	1,450	2,100
Berks	Antietam Lake	630	2,580	4,690	7,900
Berks	Scotts Run Lake	1,750	7,950	0	9,700
Blair	Canoe Lake	2,000	5,240	13,960	21,200
Blair	Smoky Run Rod & Gun Club Pond	0	0	300	300
Bradford	Mountain Lake	0	2,100	2,100	4,200
Bradford	Sunfish Pond	10,500	0	0	10,500
Bucks	Lake Luxembourg	0	0	11,500	11,500
Bucks	Levittown Lake	0	2,500	9,000	11,500
Butler	Glade Run Lake	0	2,900	9,400	12,300
Butler	Harbor Acres Lake	3,100	0	0	3,100
Cambria	Duman Dam	0	2,300	5,700	8,000
Cambria	Elton Sportsman's Dam	600	1,120	780	2,500
Cambria	Lake Rowena	0	1,950	4,950	6,900
Cameron	George B. Stevenson Res.	0	1,600	14,100	15,700
Centre	Boy Scout Dam	600	0	0	600
Centre	Poe Lake	5,200	0	3,400	8,600
Clearfield	Goss Run Dam	0	0	1,800	1,800
Clearfield	Parker Lake	7,400	0	0	7,400
Clearfield	Tannery Dam	0	0	3,200	3,200
Clinton	Kettle Creek Lake	0	0	18,500	18,500
Columbia	Briar Creek Lake	2,000	4,000	4,000	10,000
Cumberland	Children's Lake	400	1,410	2,890	4,700
Cumberland	Doubling Gap Lake	1,200	800	0	2,000
Cumberland	Fuller Lake	0	300	600	900
Cumberland	Laurel Lake	2,400	3,840	3,360	9,600
Cumberland	Opossum Creek Lake	2,000	1,000	10,700	13,700
Dauphin	Middletown Res.	0	1,000	4,200	5,200
Elk	Laurel Run Res.	6,200	0	0	6,200
Elk	Ridgway Res.	4,900	0	0	4,900
Elk	Twin Lakes	0	0	0	0
Erie	Lake Pleasant	0	2,600	10,400	13,000
Erie	Upper Gravel Pit	0	2,500	0	2,500
Fayette	Dunlap Creek Lake	0	4,100	16,100	20,200
Fayette	Virgin Run Dam	0	2,700	9,800	12,500
Forest	Wards Ranch Pond	2,000	0	0	2,000
Fulton	Cowans Gap Lake	5,000	0	9,800	14,800
Greene	Duke Lake	0	3,000	8,400	11,400
Huntingdon	Greenwood Lake	0	0	1,600	1,600
Huntingdon	Whipple Lake	4,500	1,000	0	5,500
Indiana	Blue Spruce Lake	300	0	700	1,000
Jefferson	Cloe Dam	0	0	0	0
Lackawanna	Chapman Lake	6,100	0	6,100	12,200
Lackawanna	Merli-Sarnoski Lake	8,000	0	0	8,000
Lawrence	Bessemer Lake	0	2,950	7,950	10,900

Boats

One of the drawbacks of such good fishing is that Pennsylvania's lakes have become crowded at peak times, particularly opening day. "You can walk across the boats on Opossum Lake for the first few days of the season," says McKee.

Douglas Siska gets around the problem of too many boats by fishing after everyone else goes home. In April, he says a good time to fish Lake Wallenpaupack's 5,700 acres is "maybe an hour before dark right through to midnight." He brings his boat into those areas where deep water butts up against narrow shelves. "After the trout finish suspending in deep water during the day, they come in at nighttime to feed," he notes.

The value of fishing at night is that the state record brown trout was caught in 1988 at Lake Wallenpaupack at night. "It was more (3/4-ounce) than 17 pounds," says Siska. "For Pennsylvania, that's a trout—for anywhere, that's a trout."

If you prefer to fish by day, there's no need to go home empty-handed, however. Try to stay off the main lake and concentrate on the coves, suggests Siska. When trolling clear-water lakes," Denny Wessell suggests, "in the spring keep your line back a long way—like 75 feet. Otherwise, the fish disperse out and away from the boat."



On some of these waterways boating is not permitted, so check locally if you are uncertain.

County	Water	Brook	Brown	Rainbow	Total
Lebanon	Marquette Lake	2,500	0	1,500	4,000
Lebanon	Rexmont Dam, Lower	0	1,360	340	1,700
Lebanon	Rexmont Dam, Upper	0	1,440	360	1,800
Lebanon	Stovers Dam	0	0	5,000	5,000
Lehigh	Leaser Lake	0	0	0	0
Luzerne	Irena Lake	11,000	0	0	11,000
Luzerne	Lake Francis	2,950	2,950	0	5,900
Luzerne	Lake Took-A-While	900	1,200	900	3,000
Luzerne	Lily Lake	2,400	3,200	2,400	8,000
Luzerne	Moon Lake	3,870	3,870	5,160	12,900
Luzerne	Mountain Springs Lake	4,500	0	0	4,500
Lycoming	Little Pine Lake	0	0	16,000	16,000
McKean	Bradford Reservoir #3	2,850	0	950	3,800
McKean	Hamlin Lake	2,480	1,490	4,430	8,400
Monroe	Hidden Lake	3,400	1,800	1,800	7,000
Monroe	Snow Hill Dam	1,800	0	0	1,800
Monroe	Tobyhanna Lake	3,600	0	0	3,600
Montgomery	Loch Alsh Res.	0	1,680	720	2,400
Northampton	Minsi Lake	4,800	2,600	2,600	10,000
Northumberland	Zerbe Twp. Rod & Gun Club Pond	0	0	1,600	1,600
Perry	Allen Holman Lake	0	1,120	4,480	5,600
Pike	Fairview Lake	0	1,440	2,160	3,600
Pike	Lake Minisink	1,800	1,200	0	3,000
Potter	Lyman Lake	0	0	14,000	14,000
Schuylkill	Locust Lake	7,700	3,300	0	11,000
Schuylkill	Neifert Creek Flood Control Res.	400	400	850	1,650
Schuylkill	Pumping Station Dam	2,150	0	2,150	4,300
Schuylkill	Rabbit Run Res.	450	450	1,300	2,200
Schuylkill	Whipoorwill Dam	1,750	750	0	2,500
Somerset	Kooser Lake	0	890	1,410	2,300
Somerset	Laurel Hill Lake	0	3,420	7,980	11,400
Sullivan	Hunter's Lake	10,670	0	2,430	13,100
Susquehanna	Quaker Lake	2,800	0	2,800	5,600
Susquehanna	Tingley Lake	1,500	0	1,500	3,000
Tioga	Beechwood Lake	5,950	0	5,950	11,900
Tioga	Lake Hamilton	0	0	15,300	15,300
Union	Halfway Lake	700	0	1,900	2,600
Venango	Justus Lake	4,000	4,000	0	8,000
Warren	Chapman Lake	8,360	3,240	0	11,600
Washington	Canonsburg Lake	0	4,140	15,160	19,300
Washington	Dutch Fork Lake	0	3,700	12,500	16,200
Wayne	Long Pond	0	0	5,400	5,400
Wayne	Upper Woods Pond	2,650	0	2,650	5,300
Westmoreland	Donegal Lake	0	3,940	15,160	19,100
Westmoreland	Keystone Lake	0	3,700	14,200	17,900
Westmoreland	Mammoth Lake	0	3,220	7,180	10,400
Westmoreland	Northmoreland Lake	0	690	1,610	2,300
Westmoreland	Twin Lake, Lower	0	2,800	10,200	13,000
Wyoming	Lake Winola	4,600	0	4,600	9,200
Wyoming	Oxbow Lake	0	0	5,300	5,300
York	Haldeman Pond No. 1	0	0	1,000	1,000
York	Hanover Water Company Dam	0	900	3,500	4,400
Total:		180,860	145,850	475,740	802,450

1992 Expanded Trout Fishing Opportunities *by Tom Greene*

New waters

Cascade Creek, Erie County. The 1.2-mile section of Cascade Creek from the 12th Street bridge downstream to the mouth has been added to the 1992 preseason stocking schedule. Seldom do we have the opportunity to add urban waters of this nature to the stocking program, because Cascade Creek flows through the city of Erie.

Red Mill Brook, McKean County. A new 3.2-mile section of stream from the Sergeant/Norwich Township border downstream to the mouth has been stocked with brook trout preseason and will be stocked inseason in 1992. The addition of this stream provides anglers with the opportunity to enjoy angling in a rural setting.

Cole Creek, McKean County. This tributary to Potato Creek was scheduled to receive preseason and inseason plantings of brown and rainbow trout in 1992. The stream will be stocked for its entire 1.7-mile length from the confluence of the North and South branches downstream to the mouth.

Cole Creek, South Branch, McKean County. A tributary of Cole Creek, this 2.4-mile section will be planted with trout from the T-349 bridge downstream to the mouth. Plantings of brown and rainbow trout were made preseason and will be made inseason beginning this year.

Blue Spruce Lake, Indiana County. This 13-acre lake has been included in the inseason stocking schedule for 1992. Brook and rainbow trout will be planted to provide additional angling opportunities in this area of the Commonwealth.

Lake Took-A-While, Luzerne County. Owned by Pennsylvania Power and Light Company, this 18.5-acre impoundment is a welcomed addition to the catchable trout program. Preseason and inseason stocking of brook, brown and rainbow trout begins in 1992.

Mountain Springs Lake, Luzerne County. A cooperative lake recovery effort by the Commission and local sportsmen's groups has resulted in improved water quality at Mountain Springs Lake. The 40-acre impoundment will return to the catchable trout program in 1992. Brook trout will be stocked inseason.

Hidden Lake, Monroe County. This 40-acre impoundment owned by the National Park Service will be included in the catchable trout program for 1992. The lake is scheduled to receive preseason and inseason plants of brook, brown and rainbow trout.

Lake Minisink, Pike County. This 34-acre lake has been approved for the stocking of catchable trout in 1992. Trout angling opportunities were provided by the planting of brook and brown trout on a preseason-only basis for 1992.

Kistler Creek, Lehigh County. A new 2.5-mile section of Kistler Creek is approved for the planting of catchable trout in 1992. Located near an area of high population density, the preseason and inseason plantings of brown and rainbow trout will provide additional angling opportunities in an area of the state where trout fisheries are at a premium.

Marquette Lake, Lebanon County. Located on the Fort Indiantown Gap Military Reservation, this 15-acre lake has been added to the spring catchable trout program for 1992. The lake is scheduled to receive preseason and inseason plantings of rainbow trout.

Laurel Run, Cambria County. A 3.2-mile section from one mile above Red Run downstream to the mouth has been approved for the planting of catchable trout in 1992. Brook and brown trout will be planted for opening day.

Northmoreland Lake, Westmoreland County. Located near an area of high population density, this 17-acre lake will be a welcomed addition to the catchable trout program. Brown and rainbow trout were planted preseason.

New waters for trout stocking include six streams adding more than 14 miles and seven lakes adding more than 177 acres.

Stocking increases

The overall program for several waters will be increased for a variety of reasons. These waters include:

Lake Francis, Luzerne County. Surface area previously listed as 4.0 acres is actually 6.8 acres. Stocking allocation will be increased according to classification.

Octoraro Creek, West Branch, Lancaster County. Classification changed for 8.8 miles based on increase in human population density from rural to suburban.

Conowingo Creek, Lancaster County. Classification changed for 9.6 miles based on increase in human population density from rural to suburban.

Pine Creek, Centre County. Classification change based on reinventory of access and ownership.

Maiden Creek, Berks County. Classification changes based on reinventory of access, size and ownership.

Pine Creek, Schuylkill County. Classification change based on increase in human population density from rural to suburban.

Lake Luxembourg, Bucks County. Results of angler use-and-harvest assessment encouraged increase in stocking (within limits of water's classification).

New delayed-harvest areas

Loyalsock Creek, Lycoming County. The historical fly-fishing-only regulations on Loyalsock Creek will change to delayed harvest, artificial lures only effective in 1992. The 1.4-mile section extends from the Lycoming/Sullivan County line downstream to Sandy Bottom.

Little Clearfield Creek, Clearfield County. A new 1.1-mile delayed-harvest, artificial-lures-only project has been approved on Little Clearfield Creek for 1992. The project will extend from 0.2 miles above the SR 2023 bridge upstream 1.1 miles to a pipeline crossing. Angling will be permitted year-round with a catch-and-release period from March 1 to June 15.

Towanda Creek, Bradford County. A new 1.7-mile stream extension from SR 3001 downstream to the T-350 bridge has been approved for delayed-harvest management. This project becomes the first of its kind in Bradford County. Anglers may use ar-

tificial lures—flies and spinners—when visiting this water in 1992.

Nescopeck Creek, Luzerne County. Delayed-harvest management has been instituted on a 2.4-mile section from the upstream boundary of State Game-lands 187 downstream 2.4 miles. Expanding the program in this region of the Commonwealth gives more anglers the opportunity to experience the delayed-harvest concept in 1992. Angling will be permitted under the artificial lures option, which includes the use of flies and spinners.

Dingmans Creek, Pike County. A new 1.4-mile delayed-harvest project has been created within the Delaware Water Gap National Recreation Area. This section extends from a pipeline crossing below Fulmer Falls downstream to a point 50 yards above Dingmans Falls. Anglers will be permitted to use artificial lures—flies and spinners—when visiting this scenic area in 1992.

Quittapahilla Creek, Lebanon County. Delayed-harvest management has been extended to a 1.1-mile section of stream from SR 3023 downstream to the PA 934 bridge. Anglers should welcome the varied angling experience under the artificial lures option in 1992.

Falling Spring Branch, Franklin County. A delayed-harvest, artificial-lures-only project has been instituted on a 1.1-mile section of Falling Spring Branch from Walker Road downstream to the 5th Avenue bridge. The addition of the new project in 1992 enhances the angling experience on this unique water.

Buffalo Creek, Armstrong/Butler counties. This 3.7-mile stream section has been approved for delayed-harvest management in 1992. The project extends from Little Buffalo Run downstream to a point 0.6 miles above the SR 4035 bridge in Craigsville. The addition of Buffalo Creek gives anglers an opportunity to experience the delayed-harvest program in western Pennsylvania. Angling will be permitted under the artificial-lures-only option.

First Fork of Sinnemahoning Creek, Potter County. The one-mile stretch added under delayed-harvest regulations is the mouth of Bailey Run downstream to a bend



Landowner cooperation has allowed the stocking limits to be extended on nine streams throughout the Commonwealth. Special regulations have been applied to sections of 14 new waterways.

just upstream of the Berge Run bridge. It is immediately adjacent to State Route 872 and is located in Sinnemahoning State Park.

New refuge area

Swift Run, Snyder County. Two refuge areas have been established within a 3.8-mile section of Swift Run—one site above and the other below the junction of Swift Run Road and Mountain Road. The wired areas are proposed to reduce angler concentrations immediately following a stocking, discourage truck following and extend the harvest over a longer period.

Upper Jerry Run, Cameron County. Three wired areas will be established with the lower 3.7 miles of this trout-stocked stream.

Expansions to existing waters

Stocking limits have been extended on the following waters for 1992 in conjunction with landowner cooperation.

Prather Creek, Venango County; Mix Run, Cameron County; West Branch of Wal-lenpaupack Creek, Wayne County; Pequea Creek, Lancaster County; Bald Eagle Creek, York County; West Branch of Chester Creek, Delaware County; Little Darby Creek, Delaware County; Quittapahilla Creek, Lebanon County; and Beaverdam Creek, Somerset County.

On behalf of the Commonwealth's anglers, the Pennsylvania Fish and Boat Commission would like to thank the landowners involved in providing these additional angling opportunities.

New catch-and-release waters

These waterways are regulated by artificial lures only, year-round angling and no harvest.

Roaring Brook, Lackawanna County. A 3.9-mile stretch with an excellent wild brown trout population from Hollisterville Dam downstream to Elmhurst Reservoir was just recently opened to public angling by Pennsylvania Gas and Water Company.

Toms Creek, Pike County. A 2.1-mile section in the Delaware Water Gap National Recreation Area. This stretch features outstanding beauty and has a wild brown trout population worthy of serious angling attention.

New trophy trout waters

These waterways feature artificial lures only and year-round angling, and two 14-inch trout are permitted per day except from March 1 to the opening day.

Lick Run, Centre County. A 2.5-mile section near Howard with wild brown trout. This relatively small meadow limestone stream offers a real challenge.





It's Not the Trout—

Writer Gertrude Stein didn't say, although she could have, "A trout is a trout is a trout." Instead, she talked about roses, but the sentiment's the same. Romantic notions aside, a trout is no more and no less than a trout.

It's the stream the trout's in that makes all the difference.

Rainbow, brown, brook, to catalog the trout basics—take away their individual color schemes and they act pretty much the same. When the worm is tugged on, or the fly disappears in a swirl, does it really matter which type of trout's on the hook? Can an angler even tell until he sees it

flash close up or has it netted?

Anglers may argue about subjective differences. They might say that brown trout prefer to take their meat at night, that brookies come more eagerly to the fly, and that rainbows wage a top-water battle. But these ideas can be discounted. What makes trout fishing intriguing has nothing to do with the types of trout, or even the individuality of specific trout. It's the infinity of angling situations offered by Pennsylvania's streams, where

no two casting opportunities are ever the same.

Don't try to tell that to an angling acquaintance of mine. I invited the fellow to my favorite local stocked trout stream, where a section had just been designated delayed harvest. His response? "Stocked trout? Why


bother? Once you've fished one stocked trout stream you've fished them all."

All stocked trout streams the same? The comment surprised me. It made me mad, and then sad. The angler's attitude blinded him to trout fishing's reason for being: To explore and solve the enigma of the stream. Native or newly stocked, trout are not the core of what makes the sport irresistible.

The stream is

Admittedly, the nature of trout—where and how they like to live, what and how they like to eat—determine the setting and the manner of fishing.

They put us on cold, clean waters with certain types of equipment.

A photograph of a person fishing in a stream, surrounded by dense green forest. The person is wearing a white shirt, dark pants, and a white cap, and is holding a fishing rod. The stream is dark and reflects the surrounding trees. The background is a dense forest of green trees and bushes.

It's the Stream

by Linda Steiner

When we're on the stream, the real complexities begin. The trout are in there, but where? How do we get the bait, lure or fly past them in the most attractive manner?

Flow

Why, just look at the flow! Watch the way the water bends, bounces, flexes and doubles back among the rocks—fast here, slow there. Just see how it tumbles through, under and over obstructions, and plunges and rises in response to unseen objects. It is a problem of flow rates, wave actions and light refractions fit for the armaments of higher mathematics.

Yet, anglers solve the water riddles every day with nothing but gut feeling, intuition and hard-knocks experience. They read the flow, find the lies, determine how to get there, make a well-aimed cast and take a trout. Let the fisherman make one step, even half a step, downstream and the puzzle changes again with new water and new casting angles.

Take, for example, the stream my narrow-minded friend declined to fish. The trip he missed was to Oil Creek. I was going to start him at the top end of the 1 1/2-mile-long project water. So many enthusiasts fish the section that they've given names to more than a dozen of the obvious fishing situations. For a stream that's strictly "stockies," there's no place that's boring.

Rough riffs

At the upstream bridge limit of the special-regulation area, an island splits the creek. On one side rocks break and divert the flow into a small, curving pool, which we call the "Bridge Pool." This tails off to a rocky riffle and joins the main flow. The "Bridge Run" travels deep and fast on the other side of the island. After joining, the flow flattens to a shallow, slanting



riffle, then breaks into three narrow, deep runs separated by small islands, which we've dubbed the "Near Riff," the "Shallow Riff," and on the outside, "Frustration Riff."

"Frustration Riff," like the rest of this stream section, wasn't named until many anglers fished it under the delayed-harvest designation. Since then, scores of hopefuls have been added to Frustration Riff's tally. The run always has trout, and for good reason. It can't be fished effectively from the far shore because the bank's too steep and the fish lie too close. It has to be fished from in the creek, which is where the frustration comes in.

The riff looks simple enough. Just cast to the trout rising the length of it. But there is a hidden current here that makes a drag-free drift almost impossible. Even more devious, a fly's float looks right to the fisherman, but the fish refuse the artificial and take the natural nearly every time. All eyes on the creek turn and watch when someone actually has a fish on in Frustration Riff.

All three riff's combine to become the "Outfitters Pool," so named for the nearby fly shop. Here the creek is wide, and there's good fishing wading from either bank, or gingerly edging your way down center-stream on a gravel bar. Boulders line the edge and the bottom on the far shore, and in mid-creek a rock jumble confuses the current. At the near shore, gravel and sand fall off sharply to a flow with strength and depth.

The "Outfitters Pool" slows and shallows gradually, with hidden fingers of trout-holding runs, to the riffle that marks the end of the hole. Fished thoroughly, the area from the bridge to the bottom of the "Outfitters Pool" is enough to last an afternoon and evening, yet it's only one-quarter of the project. There's still the "Long Riff," "Long Pool," "Heron Riff," "Black Corner Pool," "Power Line Pool," and more to explore. With so much ahead, who cares whether the trout found are natural or nursery-raised?

Fishing in this area of Oil Creek is like fishing nowhere else. But then, fishing anywhere is like fishing nowhere else. Inch by inch and moment by moment, a stream changes. High water, low water, spring, fall, dawn, dusk, noon, the fishing's different. Even the most familiar stream exhibits a mercurial personality and wears a million faces.

Breaking up the water

Smart anglers become adept at breaking up the water of any size stream into manageable pieces. They're not overwhelmed by a stream's size and its crazy quilt of current patterns. They know their hook can only probe one line of flow on each cast. In essence, they make the largest trout stream a series of little brookie streams and fish to each of these in turn.



Take the Allegheny River below Kinzua Dam, for instance. The first time I fished the tailwaters, I stood on the bank in awe while my fishing companions, who'd been there before, plunged in and began working their flies. Frankly, I didn't know where to start. The river was huge.

In front of me, a long, wide rapids ran to an extended pool. There was so much water and it all looked the same. Then I began to see slick places where the riffles hid deep runs. I noticed broken flows and bulges that revealed large underwater rocks with fish-holding lees. Along the near and far banks, I discovered narrow chutes that had sufficient depth for trout.

Though I'd hoped for a hatch, no rises showed. My sport would not be fishing to the fish, but fishing to the water—finding and casting to all the little streams the big river held. I worked at it, catching and releasing a dozen trout in the pockets, staying happily involved the rest of the day.

Mental pictures

All trout streams the same? Try making a mental picture of a typical Pennsylvania trout stream, or a typical trout fishing scene. Trout waters vary so much across the state, each with its own geology, topography, vegetation and adjacent land use, there's no choosing a representative sample. Even a single stream changes drastically from place to place. Round a bend and you're somewhere else entirely.

After trying the Allegheny above Warren, I had to see it in its other incarnation, as a small Potter County creek. I parked just above Roulette, my partner fishing upstream, while I went down, a dubious method with a dry fly. I fished through the road pool and made several casts in the winding shallow below, happy when it deepened and ran against the roots of a downed tree. There I managed a streambred brown and a big stockie.

From that point the river split into three channels, each literally a creek in its own right. I fished them in turn, just to find out about them. The channel on the right was sandy and narrow, gouging its way along the steep bank. There were a few places for a good cast, but it held some interesting undercuts.

The middle branch was the widest. The tall grass along the bank made me keep my backcasts high. I fished to water gurgling through tree roots and across the mini-dams of downed logs. The left channel had more rocks and gravel, and was edged by willows and brush. I took trout between the branches and where the rivulet's miniature riffles broke into tiny pools.

As expected, the three channels joined to make a terrific hole. Below that, the stream became riffly again. I looked hard to pick out the trout lies in the fast water. With the season and fishing pressure three weeks old, these underused "bad water" stretches were holding most of the trout. I found a good run along the far bank, under and along an overhanging branch. I picked up a few fish, both stockies and natives, rising above and beside the brush. Then a lunker rose.

I knew he was big because his rise wasn't a sip or slap: It went *galoomph*. For this fish I detoured into the woods and downstream, so I could approach from below. The trout was lying between and close against the "V" made by the limbs of a snag. There'd be no margin for error here. I'd have to drop the fly as tight against the "V" as I could. There'd be one try only. A miscast would spook the fish.

I false cast to get the range, and dropped the fly, to my surprise, perfectly. The trout rose and engulfed it and I struck...too quick and too hard. I had a brief feel of weight and power and he was gone. I got the fly back and fished on downstream, giving him

time to recover, but I couldn't get the big one to rise again that evening.

I wasn't too disappointed. I'd done everything three-quarters right—finding, figuring out and fooling the fish. I'd only missed on the catching.

On the same north country trip, I investigated Oswayo Creek. Behind the Fish Commission hatchery, I found it to be narrow, hemlock-choked or brush-edged—typical Potter County. At the bridge at Oswayo, springs entered alongside a picturesque field and Holstein-dotted pasture. With the instream cress and weedy growth I thought I was in southcentral Pennsylvania.

Near Clara, Oswayo Creek is a little larger. My partner fished up again, and I went down. The small bridge pool and flat below were disappointing, as was the still corner pool, but I heard rapids beyond. Here the stream fell sharply and split into interlacing runs between islands. I entered a half-lit domain among hemlock and pines, dark downed timber and sand. If I'd been transported blindfolded and dropped, I would have guessed I was in Michigan's upper peninsula or New York's Adirondacks.

I got tired of fighting limbs and tangles, both in the water and out, and trekked downriver until I saw daylight. Here the Oswayo broke into the open. The stream turned where Clara Creek entered, dropped through a run, skipped over a riffle, and fell into a hole. This ended in a rush against a drowned snag, which had three trout waiting for me.

From there downstream, until darkness drove me out, I had a pleasant time learning the stream and casting to each new fish hold I found. The twisting bends of this section of Oswayo Creek kept the next stretch a tantalizing secret until I rounded each corner.

I would have stayed on the Allegheny, or Oswayo Creek, if trout alone were the making of the trip. But I went on to try Kettle Creek, in the special-regulation section above Cross Fork, and up around Oleana. Pine Creek above Galeton has cliffs and ledges plunging to pools and rushing runs. Below Ansonia the Pine is wide and slow, and I waited until dark to pick up rising fish at the tail of a huge hole.

Then there was little Lyman Run, where my upstream fishing took me into cool woods, while my companion's downstream angling took him into meadowland. We experienced different Lyman runs but we both took trout.

"Root beer" creeks

All trout streams the same? Even the water itself is different from place to place. Freestone streams are clear, limestoners are milky. Then there are the "root beer" creeks. That's what appears to flow in Pike County's Shohola Creek, as if its headwaters were on the Big Rock Candy Mountain.

When I first fished Shohola, I hadn't experienced the tannic waters of the Poconos, and we arrived predawn. I eased myself down through the cliffs and was shocked to find a clear, brown torrent, foaming between the boulders. My first thought was, "Root beer!" My second was, "is it polluted?" Several casts and a trout on the line answered the question. Farther to the south, I met the Lehigh River. This, too, was tannic-stained, a dark Youghiogheny in the way it flowed. Later I made the acquaintance of other northeastern Pennsylvania "root beer" creeks.

Fishermen may argue forever the relative merits of catching hatchery-raised vs. streamborn fish. But all must agree on what the stream adds to the angling experience. Without the stream's vagaries of flow, its obstacle course of obstructions and casting challenges, not to mention the changing scenery, one might as well fish in a bucket in his own backyard.



Eel inquiry

The "Kid's Page" of the December 1991 *Angler* has some fascinating information on eels. Because eels live in freshwater and migrate to the sea to spawn, there is no question they are imprinted with the taste, smell or composition of some freshwater stream. But how do they get to a particular freshwater stream? Or do they? Do they select a freshwater stream in a random manner? Do all the eels that breed around the Sargasso Sea return to the Americas? Or do some go to Europe or Africa?

The nearest body of water in Pennsylvania that I am aware of containing eels is the Delaware River. Are these eels safe to eat? Are eel runs similar to shad runs? Or can eels be caught all year?

Is it legal to use eel pots, which are similar to minnow traps or lobster pots, to catch eels in the Delaware? Is there a better way to catch them?

And lastly, is there a book that can give me additional information about the life cycle of the eel, its habits, and methods of capturing them?—*Andrew Hughes, Williamsport, PA.*

Anglers most frequently catch eels in the Delaware River and its tributaries by hook and line while baitfishing for other species. On some summer nights it's difficult to catch anything else because of their abundance and willingness to bite. In my opinion, eel fishing is best in the main stem of the Delaware River or its undammed tributaries, but they are also common in its dammed tributaries such as the Schuylkill River. American eels have an amazing ability to climb over or find their way around low-head dams, and because of their adaptability, they have been found well upstream from major rivers in warmwater streams, lakes, and in headwaters of mountain brook trout streams. Fishing is best from May to October, but the use of eel pots is not permitted in Pennsylvania.

Health advisories are currently in effect against the consumption of American eels taken from the following Pennsylvania waters where eel flesh is contaminated

with chlordane, DDT, and/or PCBs: Delaware River and Estuary—Yardley, PA, to the PA/Delaware state line; Schuylkill River—Felix Dam above Reading to the mouth at Philadelphia; Brandywine Creek—Chadds Ford area; West Branch Brandywine Creek—four miles downstream from Coatesville.

The high fat content and bottom-dwelling habits of eels expose them to contaminants and allow them to accumulate high concentrations of these contaminants.

American and European eels spawn in the Sargasso Sea and the young eels return to the continent of parental origin. However, this explanation concerning the separation of American and European species has been the subject of considerable scientific debate. I have little information on African species; however, eels from South Africa spawn in the Indian Ocean.

America-bound eel larvae drift northward and eastward in major ocean currents such as the Florida Current and the Gulf Stream for about a year before they metamorphose into glass eels. Then they enter estuaries at random, metamorphose into elvers (adult-like young), and ascend rivers or streams. Apparently, "selection" of a particular estuary depends on the direction that the larval eels were carried at sea. Samples of eels taken from up and down the East Coast show great genetic similarity, suggesting an absence of distinct river system stocks that have been described for other species of fish.

I am not aware of any books on American eels, but libraries often have many books on fish.—*Michael L. Kaufmann, Area 6 Fisheries Manager, Revere, PA.*

Memorable moment

I noticed the trout when it was about 30 feet away. I had to calm myself down; this was one of the largest risers I had seen all day, and I didn't want to scare him off. I crept within 20 feet of the trout and knelt for a minute or two. He rose twice more. I took the size 14 clipped-hair beetle from the keeper and stripped off 10 feet of line plus the 12-foot leader. The fish rose once more, and I false cast to the side and then shot the fly toward the trout. It landed a foot-and-a-half in front of him and he came up, slid back, nosed up again and took the beetle. I struck and hooked him solidly. He immediately dived for the bottom. I had to wade in, but as soon as I did, he bent

the 6 1/2-foot fly rod over double. He took a few more feet of line, but soon I had him and the bunch of vegetation he brought with him. He measured 15 inches—the best brown trout I have ever caught on the Letort. I know this will happen more often if I continue to take my time and follow a few tips from the "old timers."—*Tim Zietak, age 13, Pittsburgh, PA.*

I really enjoy reading *Pennsylvania Angler*, particularly "Anglers Notebook." It provides money-saving hints and other ideas on how to be a better fisherman. After reading each issue, I cut these tips out and assemble them in a notebook for future reference. Thank you for a good reference book and magazine.—*Francis P. Gannon, Jr., Philadelphia, PA.*

Comments on the Angler

You put out a dandy little magazine, and I admire the Pennsylvania Fish Commission. My only comment is that a limit of five or six trout should be enough for anyone. Keep up the good work!—*J. K. Smith, Yulan, NY.*

The fish that caught the man

While plug casting on the East Branch of the Perkiomen Creek in Franconia Park Wednesday night, August 28, 1991, I had a bass strike. I had him coming to me, but about 10 feet in front of me he took a lunge toward me and the hook caught in my boot. I had to cut the boot to remove the hook and release the bass—a 12-inch smallmouth. I am 79 and still enjoy my fishing and reading the *Angler*.—*Victor G. Frederick, Telford, PA.*

Snake tale

When I contacted the Fish Commission some time ago regarding the black snakes populating my basement, I received a very helpful pamphlet. It has helped my nine-year-old daughter and me learn how to recognize a poisonous snake from one that is non-poisonous.

I wanted to let you know that we recently captured our first snake. I was at the kitchen sink when I looked out the window and saw a four-foot black snake coming toward the house. I went outside with an oar and an open cardboard box and placed the box in front of the snake. Then I nudged the snake a few times and it crawled into the box. I

quickly stood the box on end and closed the flaps, and my daughter put a rock on it to hold the top down. We drove to the woods about four miles away and released the snake. We were both nervous through this ordeal, but we managed to capture and release the snake without injury to it or ourselves—making that one less to deal with at home!

I'm proud of my daughter and me because we both learned something. Thank you again for all your advice. It has been quite helpful.—*Holly A. Wolfe, Armagh, PA.*

BASITALK BACKTALK BACKTALK

Argue with the Commission. Applaud us. Advise us. The Fish & Boat Commission invites you to write letters to the editor in this space if you have an idea on *Pennsylvania Angler* content, a question about the Commission or about fish and fishing, or a helpful idea for anglers or boaters. Address correspondence to: The Editor, *Pennsylvania Angler*, P.O. Box 1673, Harrisburg, PA 17105-1673. The Commission considers only signed correspondence for publication and response, and letters are edited for clarity and space considerations.

Boating Can Be Stressful

A day fishing from a boat with the sun shining, a breeze blowing and the boat gently rocking sounds like pure relaxation. Add a few drinks to the scene, good fishing action and excitement and it's an idyllic vacation.

But the scene can easily turn from a dream to a nightmare. A few hours of fishing and small-boat operation can be more stressful to a person than the same amount of time spent driving on the highway.

Studies have shown that exposure to the sun, wind, engine noise, vibration and constant motion can slow reaction time significantly.

Boat operators tested on specially designed courses showed a decreasing ability to deal with obstacles and to control their vessels in tight maneuvering situations

as the day progressed. One operator stated, "On the last run, I had no business being out on the water. I was too blitzed to handle it."

Consuming alcoholic beverages makes the situation worse. Peripheral vision is reduced and hearing is less acute. Most operators who have been drinking don't feel the effects. They feel fine until they hit the dock—or something else. And the ride back to port after a long day on the water is the crucial period.

Don't let the operator of your boat become another accident statistic. Make sure he or she takes a break and rests to compensate for the fatigue of being exposed to the environment for extended periods. Don't let the boat operator drink and drive—it's not only illegal, but an intoxicated boat operator can be deadly.—*Hunt Anderson.*

Top 10 Boat Registration Counties in 1991

In 1991, the number of boats registered in Pennsylvania was 301,804. This figure is five percent higher than the 1990 total.

The 10 Pennsylvania counties with the highest numbers of registered boats were:

Allegheny	29,392
Bucks	13,907
Luzerne	11,601
York	10,581
Erie	10,376
Montgomery	10,301
Westmoreland	10,046
Lancaster	9,022
Dauphin	8,178
Lackawanna	7,608

The total numbers of boats registered in Pennsylvania during the last 10 years were:

1982	197,193
1983	208,852
1984	216,859
1985	228,561
1986	236,011
1987	250,586
1988	265,823
1989	278,535
1990	286,826
1991	301,804

Pennsylvania ranks 12th among the states for the highest number of boats registered.

Fish Commission Becomes Fish and Boat Commission

The Pennsylvania Fish Commission officially became the Pennsylvania Fish and Boat Commission last December when Governor Robert P. Casey signed House Bill 1107 into law.

The Fish and Boat Commission's new name recognizes the Commission's role in regulating recreational boating and in encouraging boating on Pennsylvania waters. The Commission assumed direct responsibility for management of boats and boating in 1931. Pennsylvania has witnessed a tremendous growth in boating in the last 60 years, and the new name more accurately reflects the Commission's mission.

The Commission will accomplish the name change with minimal costs. The bill provides that existing supplies of badges, emblems, stationery and other materials bearing the name "Pennsylvania Fish Commission" will be used or recycled.

The bill also includes an increase in registration fees for powered boats and a voluntary registration fee for non-powered boats. This represents the first increase in registration fees

since 1963. The fees have been set as follows:

- Registration of motorboats less than 16 feet in length: \$10 per year.
- Registration of motorboats from 16 feet to less than 20 feet in length: \$15 per year.
- Registration of motorboats 20 feet or more in length: \$20 per year.
- Voluntary registration of non-powered boats: \$5 per year.
- Duplicate owner registrations: \$3 each.
- Dealer registration: \$15 each per year.
- Commercial passenger boat registration: \$25 each.
- License for operator of boats carrying passengers for hire: \$5 each.
- Capacity plate: \$5 each.
- Permit for floating structure and private aids to navigation: \$10 each.

All of these fees will be deposited into the Boat Fund.

How to Release Trout

Many factors influence the chance of survival when a trout is returned to the water after it's caught and played. Even though the fish may appear to be in good condition when it's released, there is no guarantee that it will survive. Nevertheless, if you follow these steps closely, you greatly increase the likelihood for survival of the fish you release.

- Time is important. Play and release the trout as quickly as possible. Don't play the fish until it's completely exhausted.

- Keep your catch in the water as much as possible when you remove the hook. A trout suffocates out of water and can sustain brain damage. In ad-

dition, if you let a fish flop around on rocks or on the bottom of a boat, you can fatally injure it.

- Be gentle when handling trout. Don't squeeze your catch, and keep your fingers out of its gills. Small-mesh nets are helpful if the mesh doesn't get tangled in the trout's gills.

- Remove the hook gently but as quickly as possible. Use long-nosed pliers, forceps or similar tools. If the trout is hooked deeply, cut the line near the fish's mouth and leave the hook in. Don't tear out the hook.

- Revive the fish and then release it after it regains equilibrium. Hold the trout upright, heading upstream. Move the fish forward and backward to force water through the gills. When the trout revives and can swim normally, let it go.



Dedicated to the sound conservation of our aquatic resources, the protection and management of the state's diversified fisheries, and the ideals of safe boating and optimum boating opportunities.

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Angler's Notebook by Joe Reynolds



Trout in small streams often take up positions close to brushy banks. Use a long fly rod and "dap" a wet or dry fly on the surface to draw strikes from fish in locations that cannot be reached with a regular cast.

Inch worms are plentiful in the spring and trout feast on them. Cast imitations so they land with a "splat," just like the naturals.

Plastic worms are an effective year-round bass lure, but especially so in the spring where waters are open to bass fishing.

Consider spinning reel spool diameter when you select monofilament. A few good benchmarks for matching lines with spinning reels are: Ultra-light spinning reels, 2- to 4-pound-test monofilament; light spinning reels, 6- to 10-pound; medium spinning reels, 8- to 12-pound; and heavy spinning reels, 14- to 20-pound.

The largemouth bass is not a true bass but a member of the sunfish family. This family also includes the crappie, bluegill, rock bass, warmouth bass and numerous panfishes.

As with most fishing, the best time of the year to catch catfish is in the spring. When water temperatures warm into the 60s, catfish move to the shallows in search of proper spawning habitat. Just before and after spawning, the fish feed constantly.

Children are more interested in catching fish than in specific species or fancy tackle. Bluegills, simple tackle and garden worms are the perfect combination for a successful parent/child fishing expedition.

Try a "strike indicator" when fishing wet flies for trout. Use a small piece of styrofoam about two feet above the fly as a bobber and strike at any unusual movement during a float.

A closed-face spinning outfit, spooled with 6-pound-test line, is the perfect tackle to select for a young angler.

When waters are muddy, try live minnows or crayfish bounced along the bottom for smallmouth bass.

Look for walleye on the windward shore of lakes where wave action creates a muddy area.

For better traction in rocky streams and rivers, glue indoor/outdoor carpeting to the bottoms of hip boots and waders, or purchase waders with felt soles already attached.

Presentation is important when casting to rising trout. Avoid long casts that are difficult to control. Concentrate on short, well-placed casts.

Clean your boat trailer bearings and repack them with fresh grease before setting out on any long trips at the beginning of the fishing season.

illustration- George Lavanish

On the Water

with Dave Wolf

"Why All the Fuss?"

The earth thawed two weeks ago, about the same time boaters were unwrapping their boats for a new season. Many planned to be on the water on that magical day—the trout season opener. April 18 was a day I had circled on my calendar six months ago. Others had already been on our still waters searching for bass. But now everyone's attention has shifted to trout and that day of great tradition when coldwater creatures are ceremoniously lifted from the chilling waters of spring. It is a day when the majority of anglers gather around free-flowing streams and stillwater lakes in hopes of bringing to net a creature of beauty—full of graceful leaps. Some even have gone as far as to call the trout noble. Yes, the "noble" trout.

Why all the fuss over a creature that a stocking truck may have delivered only a week before? Why have I witnessed angler after angler peering from atop a bridge into the glassy waters below, where in the icy currents trout swim en masse? Trout, even those freshly stocked, seem to be more difficult to catch than most species, which adds to the attraction. No one can deny that they are beautiful creatures, graced with color and figuration that most artists have a difficult time duplicating. The fact that they take a wide variety of lures, baits and flies also brings them to the forefront simply as icing on the cake.

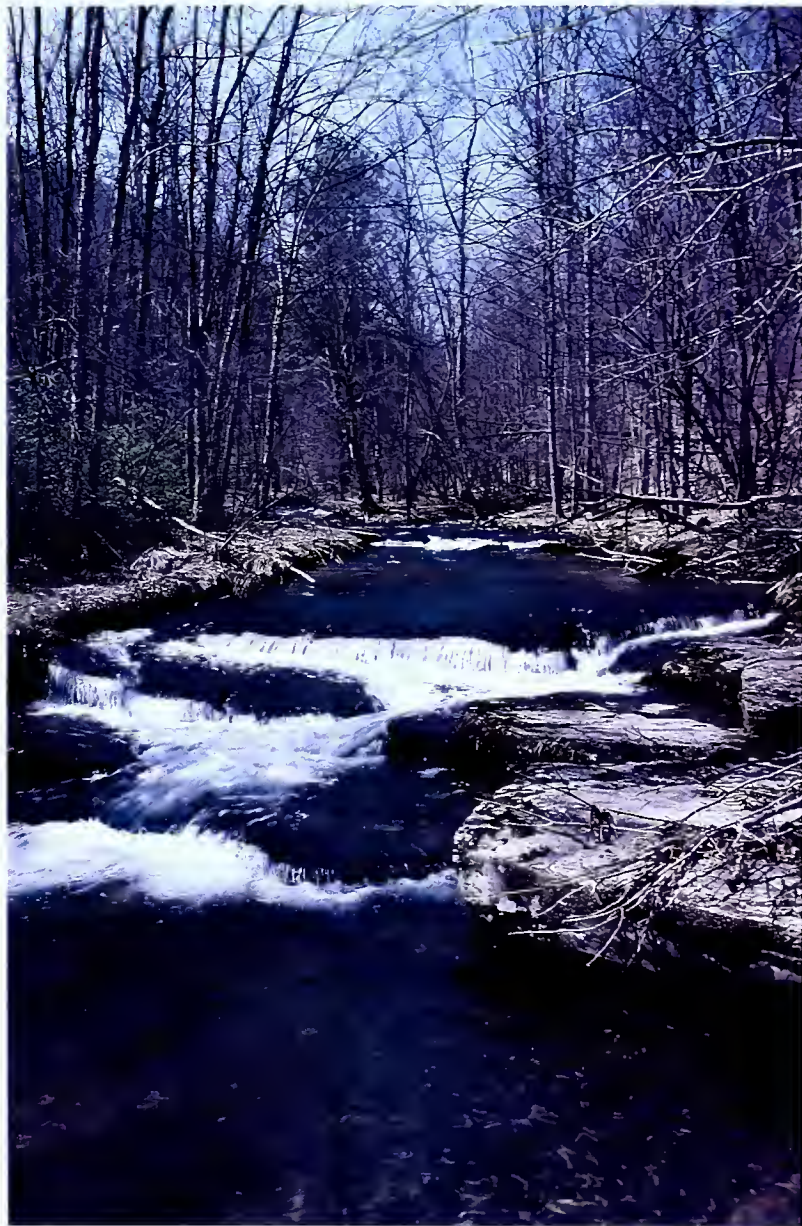
But I suspect that more than anything else, it is the simple fact that trout season is the first new season of the year. Many consider opening day a sign of warmer, gentler weather that will surely follow. Oh yes, we have those in our ranks who fish all season long, but the majority put away their rods sometime in late October and give little thought to fishing until April.

April brings anglers out of hibernation and flooding into the local tackle stores. Ask anyone in the business and they will tell you April is the peak period of tackle sales in Pennsylvania. New rods, new line, new waders, a selection of the newest and most improved lures—all these add to the excitement of a new season. Then there are the phone calls to friends you have not spoken to in months, and all the detailed arrangements on where to fish, when to meet and what to bring.

For some the crowds are too much to bear, and they busy themselves with trying to find solitude at wild or native trout streams, where the hatchery truck has not visited. To others, the crowds are part of the festive affair, and they prefer standing on the banks conversing together throughout the day and admiring one another's catch.

Some approach the day with a religious fervor. Others view it as just another event, a signal that spring is around the corner and that wading the chilling currents will become a faded memory. The brilliant trout will remain etched in one's mind for a long time to come, however, and many will live trout seasons past on this day filled with tradition.

They will recall the snow squalls encountered when fishing a northern county freestone with a friend or family member. They



may have come back this year to chase the ghosts of seasons past or to create new memories. They cast in hopes of landing many fish, or an exceptionally large fish. Others may simply wish to hold a native brookie for a moment to admire it before slipping it back into the flow. The fact that there is only preparation, skill and a great degree of luck tossed into the mixed bag of opening day only adds to its charm. For no one knows for certain what it may bring. No one will leave the stream on this special day with the same thoughts—no matter how heavy the creel may be.

Tonight nothing will be left but boot prints in the soft earth, and around the Commonwealth anglers will gather—each with his own story to tell.

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C. I

Straight Talk

A Window of Opportunity



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

The Fish and Boat Commission has many long-standing programs to protect, conserve and enhance Pennsylvania's water resources and aquatic habitats. It also provides public access to existing lakes and waterways of the Commonwealth while constantly seeking new waters for fishing and boating recreation.

Land acquisition provides public access to existing waterways, lakes and ponds, and protects vital resources such as natural springs, high-quality streams and vital wetlands. Land acquisition continues to deserve high priority by the Commission, as well as all environmental concerns.

Unlike most state agencies, the Commission is required to find acquisition and capital improvement funds from its own annual revenue, which is also the only source of operating funds. This means that major acquisitions can be accomplished only by adjusting operating funds needed for continuing programs. In addition, development money for fish culture station improvements, new access areas, support facilities, major repairs and equipment replacement must be provided from routine revenue, thereby making it difficult to divert funds when important, costly acquisition opportunities arise.

In recent years the cost to purchase prime real estate, particularly waterfront property, has risen rapidly as availability diminished. However, today's economic conditions have created several acquisition and development opportunities that once were believed to be permanently lost. Thus, the Commission asks, "How can we find the funding to respond to this 'window of opportunity' without curtailment of current levels of public service?"

The Commission has repeatedly urged the General Assembly and the Administration to consider habitat protection as one of its prime initiatives and to expand efforts to put more key habitat areas and recreational lands under public ownership. In this area Pennsylvania has become a leader among other states, in large part because of the Project 500 and Project 70 land and water conservation bond issues. These bond issues provided land and projects for public enjoyment that maintain enormous recreational benefits.

A new initiative modeled on these successes is very much in order for Pennsylvania, but unfortunately there appears to be little movement in that direction.

Thirty-one years ago, the Commission faced a similar situation—several key acquisition and development opportunities were available and long-term public benefits from promptly moving ahead on them were apparent to the Commission and to sportsmen. As a result, the Commission sought legislative support to borrow money through a Commonwealth bond issue, and with its passage the Commission was able to move ahead with the purchase of several valuable lakes and access areas, and construction of several major fishing and boating lakes.

Payments for the bond indebtedness and required interest payments were deducted from future-year revenue over a 30-year period, and this debt will be totally retired within the next few years.

Is it time for the Commission to repeat this kind of program? Many economic indicators, such as current low interest rates, availability of key properties, low construction costs, and present and anticipated inflation costs, suggest that the time is right. In addition, there is a growing understanding among all environmental and recreational interests that poorly planned and controlled growth and/or private property owners' quest for privacy are rapidly closing many windows of opportunity for future public recreation.

The decision to incur indebtedness to benefit from these present opportunities is a challenge the Commission now faces.

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The covers

This issue's front-cover crappie, photographed by Doug Stamm, attests to the popularity of panfish among Pennsylvania anglers. Surveys of *Pennsylvania Angler* readers show that panfish, trout, bass and walleyes are the most sought-after species. Along these lines, check out the article on crappies on page 4 to learn the lowdown on three western Pennsylvania crappie hotspots. For a look at an amazing southcentral Pennsylvania bluegill waterway, turn to page 14. Trout anglers can increase the odds in all parts of Pennsylvania by reading the article on page 8, and for sharp ideas on where to fish within an hour's drive of Williamsport, see page 16. We also spotlight a northwest Pennsylvania trout watershed on page 21. For the lowdown on some of the best walleye fishing, not only in Pennsylvania but in the United States, turn to page 24. Shad anglers should check out page 12 for the details on a hot, new American shad lure. On page 31 we explore the limits of luck for anglers who fish from boats. Lastly, on this issue's back cover you can scan the details on Pennsylvania state record fish.

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The Armstrong County

The drive north on the Allegheny Valley Expressway out of Pittsburgh is one of contrast. The congestion of the city quickly gives way to a series of river towns as the expressway follows the Allegheny River.

Traveling farther north, the road veers a bit from the river. Two high-level bridges elevate the four-lane highway above the scenic Buffalo Creek Valley. A sign welcomes you to Armstrong County, one that alludes to the wealth of outdoor recreation to be found there.

Armstrong County does indeed play host to an array of outdoor opportunities. The Allegheny River, which bisects the county from north to south, is the focal point of activity. Here one finds the unusual blend of both quality boating and fishing.

But the fishing extends beyond the flowing waters of the Allegheny. Three major lakes in the county's perimeter—Crooked Creek Lake, Mahoning Creek Lake, and Keystone Lake—are waters that exhibit different physical characteristics, but one common thread binds them: Each offers quality spring crappie fishing.

Crooked Creek Lake

Located about midway between Ford City and Leechburg, Crooked Creek Lake is a 350-acre flood control lake operated by the U.S. Army Corps of Engineers.

The surrounding terrain is typical of flood control lakes in western Pennsylvania—steep-sided embankments giving way to the lake's pool. The lake is basically a narrow, twisting flooded valley.

Emil Svetahor, the Fish and Boat Commission's Armstrong County WCO, considers the Crooked Creek crappie fishery to be basically a numbers game, rather than size.

"In the spring you can catch hundreds of crappies, but they tend to be small," says Svetahor. "They seem to be in every submerged tree."

Svetahor also noted that during the last few years the overall size of Crooked Creek's fish, including the size of crappies, has increased. Area Fisheries Manager (AFM) Ron Lee believes this is directly related to the forage found in the lake.

"Back in 1983 we introduced gizzard shad into Crooked Creek to improve the forage base," Lee says. "At some point,

as shad grow they will be in the size range suitable for crappies, which gives them a few weeks to bulk up."

Spring crappie fishing can be a fairly simple affair in waters with some submerged wood cover. Such habitat draws spring crappies, resulting in concentrations of fish. Crooked Creek has an abundance of this type of cover.

Paul Toman, resource manager at Crooked Creek, reported that over 200 wood structures have been placed in the lake, the

result of a combined effort of the Corps of Engineers, local boy scout troops and sportsmen's clubs. The majority of structures are submerged Christmas tree piles. Several tire reefs have also been sunk. About 20 shoreline-connected trees have been dropped and cabled to the shore to augment the ones that have fallen into the lake naturally.

Crooked Creek is unique because it doesn't experience an annual winter drawdown common to flood control lakes. This results in the growth of a fair amount of aquatic vegetation. Weed growth isn't extensive enough in the early spring to be a major fish attractor, but the same can't be said later in the season. I found numbers of crappies using the deep edge of weedbeds while fishing the lake late last summer and fall.

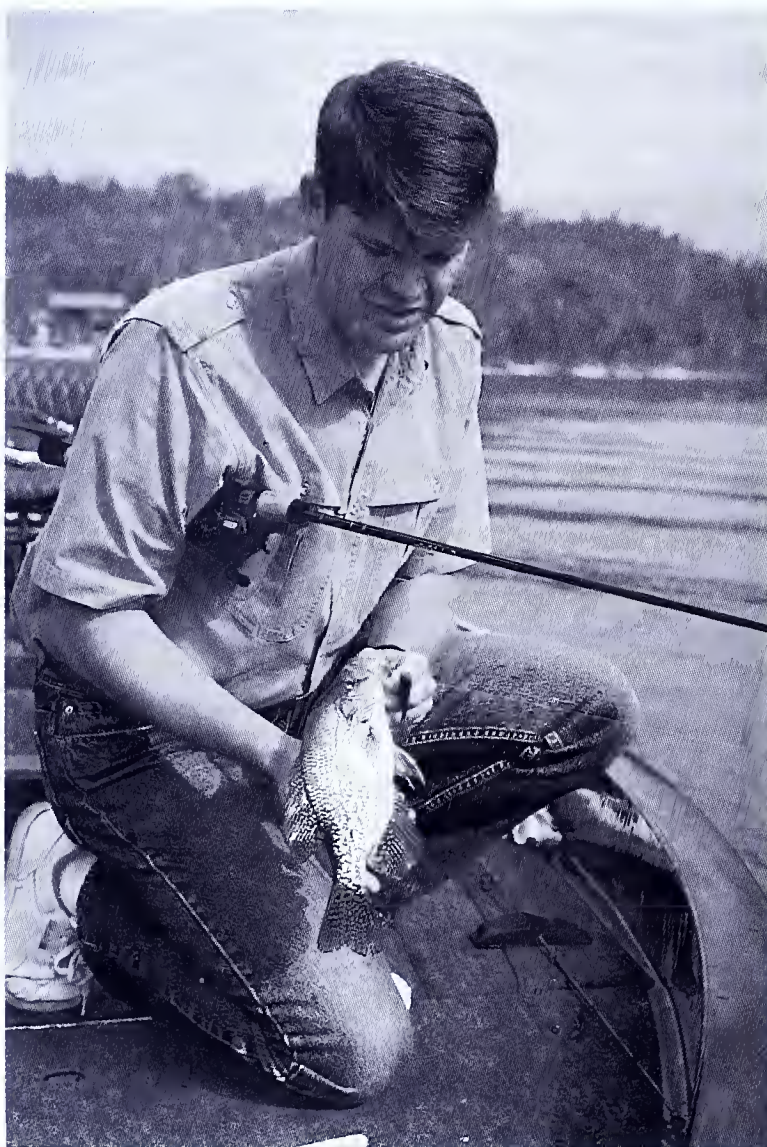
Crooked Creek Lake is located just off of Route 66, which runs north and south from Ford City to Leechburg. Travelers heading south from Ford

City should turn east onto township road 03108, which leads to Crooked Creek Lake. The Route 66 turn-off is well-marked.

A park surrounds Crooked Creek Lake, and signs indicate how to reach the launch ramp. No horsepower restrictions are in place, but a significant portion of the lake falls within two "no-wake" zones.

The park contains a 48-site campground, which opens the week before Memorial Day.

The best crappie fishing at Crooked Creek is available to those with a boat. Shore anglers willing to hike the shoreline trails to fish submerged trees should also be able to score on crappies.



Crappie Connection

by Jeff Knapp



Keystone Lake

Near the eastern border of Armstrong County lies Keystone Lake, a 1,000-acre reservoir owned by a consortium of electric utility companies. Keystone Lake furnishes water for a major coal-fired electric generating station, so its common alias is Keystone Power Dam.

Though Keystone Lake is privately owned, the Commission manages its fishery and maintains its accesses. Of the three lakes discussed here, Keystone is the most popular and receives heavy fishing pressure.

Keystone, unlike Mahoning and Crooked Creek, lies in what was once farm country and old Christmas tree farms. Its habitat and characteristics are diverse.

The upper end of the lake is shallow, with gently sloping grass-covered flats dropping into a creek channel that ranges from eight to 15 feet deep. The water is stained. The extent of staining depends on the recent weather.

About 1 1/2 miles from the headwaters, the east side of the lake has a sharp drop. The creek channel hugs this bank the rest of the way down the lake. Deep water is usually quite close to shore on this side of the lake, though several prominent points are present.

The west side of Keystone tends to be flatter. You can find many good structural elements there, but they tend to be more subtle. Other than the upper end of Keystone, water clarity is clear most of the time.

Despite experiencing heavy fishing pressure, Keystone Lake produces some exceptional fish every year, crappies included. AFM Ron Lee says that black crappies are the primary crappie species, and growth rates are higher than the state rate.

Though crappies aren't particularly dense in Keystone, they are concentrated and catchable during the spring months. And the size of the fish is impressive, despite fishing pressure and substantial harvest. Ten-inchers are common, with 12-inch crappies showing up often enough to make things interesting. I've caught crappies from Keystone just shy of the 14-inch mark.

What makes crappies catchable here in the spring is the amount of submerged wood cover. Like Crooked Creek Lake, sunken brush piles and dropped shoreline trees have been placed in Keystone Lake. Much of this cover attracts crappies in the spring.

The submerged brush piles, which are made of old pine trees lashed together, tend to be the most consistent attractors of spring crappies. The best ones are in fairly shallow water, but they are next to the main or secondary creek channels.

When the lake is at full pool, most of this cover is underwater. Look for the odd branch or two sticking above the surface. These piles were placed in groups. Where you find one, others are probably nearby.

The first crappie action of the year takes place on brush located in protected areas that warm first. These areas include the extreme upper end of the lake and the backs of shallow bays and coves.

As water temperatures rise and the main lake temperature reaches the low to mid-50-degree range, wood in the lake proper begins to hold fish. The best shoreline-connected trees seem to be the ones with the most branches, which equates to more cover for the fish. The shoreline trees rarely hold the concentrations of fish that brush piles do, but some of my

biggest fish have come from these trees.

Even though wood cover is the drawing card for spring crappies at Keystone, anglers fishing this spring may encounter a slightly different situation.

The droughts of 1988 and 1991 exposed much of this cover when the lake dropped 10 to 12 feet during these summers. WCO Jan Caveney, who patrols Keystone Lake, says that some of this cover may be lost because of the drought.

"The wood cover was exposed in 1988, but not as long as it was last year," Caveney says. "Time will tell how much of it remains." The brush piles, which are generally in less than 10 feet of water, are the most likely to suffer degradation as a result of this exposure.

Keystone Lake is located along Route 210, about five miles north of Elderton, which in turn is found at the intersection of Route 210 and Route 422. Elderton is 10 miles west of Indiana and 14 miles east of Kittanning. The easiest-to-reach launch ramp is the Fish and Boat Commission's Atwood Access, just off Route 210 at about the midway point of the lake. A second Commission site, the NuMine Access, is on the opposite side of the lake.

To reach the NuMine Access, take township road 690 off Route 85. The turn-off on Route 85 is marked. The NuMine Access is a fine facility, but reaching it requires trailering over a few miles of back roads. For this reason it is lightly used. Anyone traveling to the area to fish Keystone would likely want to use the Atwood Access.

Shore anglers can also catch Keystone crappies. Look for brush piles within reach of shore, particularly in the backs of bays.

Keystone Lake has a 10hp limit.

Mahoning Creek Lake

Mahoning Creek Lake, located near Dayton, would have to be considered remote, at least by western Pennsylvania standards. This Corps of Engineers flood control lake is a bit off the beaten trail.

Mahoning, according to AFM Ron Lee, is a low-productivity lake. Because its water flows through quite quickly (nine-day retention time on the average), nutrients don't have time to build up.

But low productivity doesn't mean a lake can't support fish—it just can't support large numbers of them. Mahoning annually kicks out some outstanding fish, especially muskies and pike. Large bass are caught, and so are crappies.

WCO Emil Svetahor considers Mahoning to be different from Crooked Creek. Here there are not high numbers of crappies, but many of the fish run 10 to 12 inches.

"Anglers who know the lake do well in the spring," says Svetahor, "but it is a tough lake to fish." One of the factors that makes it hard to fish is the lack of fish-attracting structure to concentrate crappies.

"Most of the wood we have here in Mahoning is drift," says Mike Mazzocco, a park ranger at Mahoning. "Some anglers do very well in the spring fishing the bluff banks near the breast." Shoreline trees, which have fallen into the lake because of erosion, are present there.

Another situation Mahoning Creek Lake crappie anglers must deal with is the pool level. Mahoning doesn't usually reach summer pool, which is about 280 acres, until sometime in May. The only boat ramp suitable for trailered boats is the Milton access, which is located at the extreme upper end of the

lake. Until the lake is brought up to summer pool, it isn't a lake, but a stream at the launch ramp.

Mazzocco says that the Milton access opens around mid-April, but it could be a month or more before there is enough water for anything other than a canoe.

Another access is located near the dam—the Sportsmens launch. However, this area is now under renovation by both the Fish and Boat Commission and the Corps of Engineers. Eventually facilities will be in place for trailered boats, but for now it is limited to cartoppers. The Sportsmens launch also opens about mid-April.

The office of Mahoning Creek Lake provides daily information on pool level, launch ramp status and lake conditions in the form of a recorded message. The phone number is (814) 257-8017.

Once the lake reaches summer pool, anglers find plenty of flooded standing timber in the upper-third of the lake. Check out such habitat, particularly where jammed driftwood has created thicker wood cover.

Armstrong County operates a public campground, which is located within the Milton access area. Motors on Mahoning Creek Lake are limited to 10hp. Shore fishing is very limited because of the undeveloped steep shoreline.

The Milton access is located along Route 839 a few miles north of Dayton. The Sportsmens launch can be reached by following the signs in Dayton, which indicate the township roads to take to the lake.

Tactics

Spring crappie fishing needn't be complicated. That's one of the attractions of the sport.

Keep in mind that the shallow water migrations these fish make in the early spring are forage-related. The fish move into the wood to feed. Weather plays a major factor in success. Warm, stable weather usually puts the fish on the bite. A nasty cold snap knocks them down.

To catch crappies from any of these three lakes you need light spinning or spin-cast tackle loaded with six- to eight-pound-test quality line. Longer rods, 6 1/2- to seven-footers, help to lob the bait gently into position.

Small, sensitive pencil bobbers suspend a bait above the wood. Bring along an ample supply. You'll break off occasionally while fishing the wood.

Crappies readily take soft-plastic baits, but you can increase your catch in the spring by using live bait. The small fathead minnows most bait dealers sell are just the proper size.

For fishing minnows you can use either a plain hook or a small jighead of 1/16- to 1/32-ounce. I like jigs formed on fairly large hooks so I can also include a small plastic dressing. A small plastic-tailed lure with the tail pinched off works great for this.

The addition of plastic allows you to include some color. I've done best on these waters using yellow, chartreuse, pink and white.

Light-wire bait hooks in size 6 or so are also adequate. Pinch on a small splitshot or two to keep the minnow down where you want it.

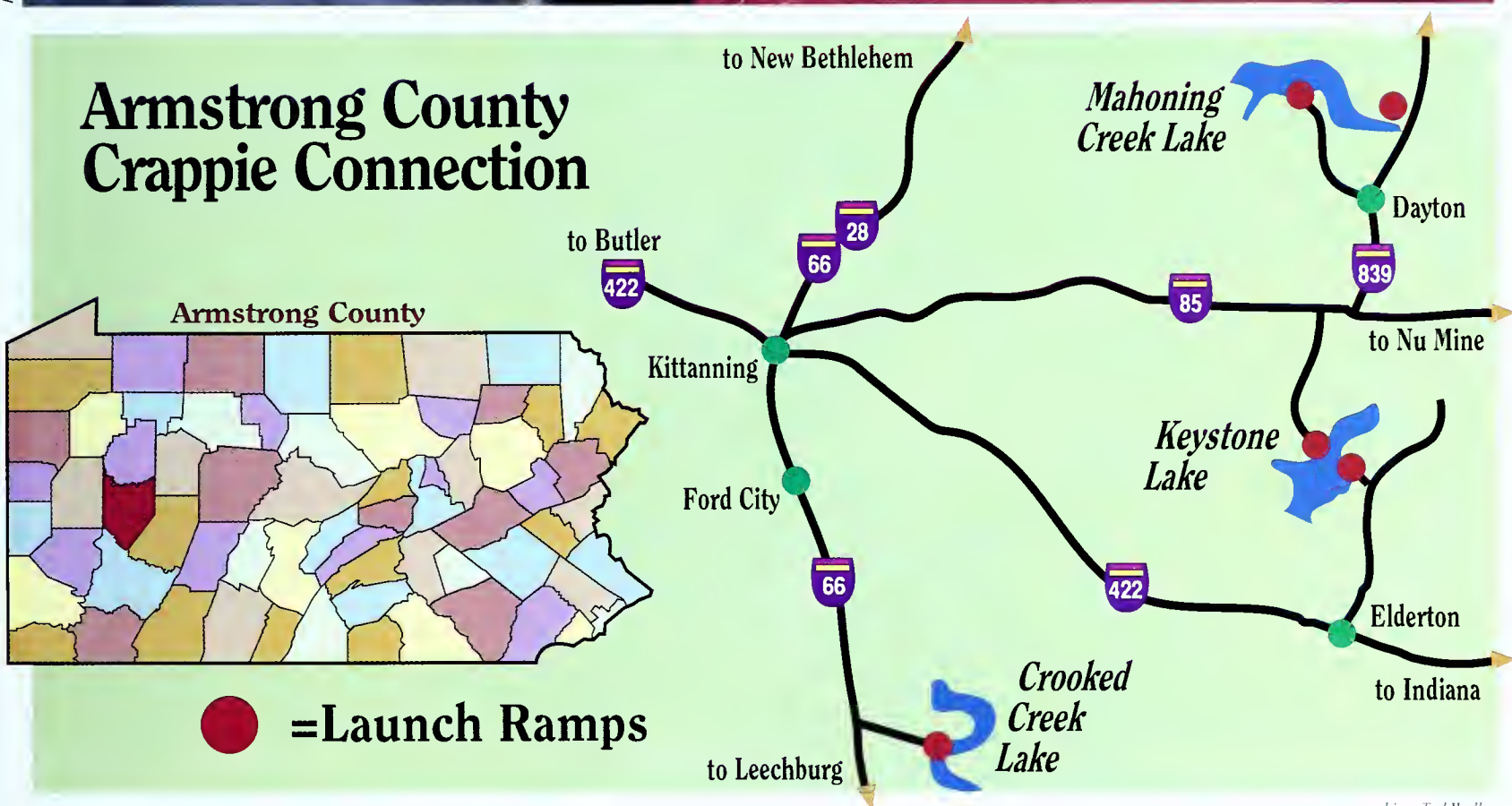
With both the jig and baithook set-ups, you may want to experiment with hooking position to see which gives you the best success. I seem to get the most hook-ups by lightly hooking the minnow through the back.

One of the keys to triggering these fish is to hang the bait



Russ Gettig

Armstrong County Crappie Connection



graphics- Ted Walke

right in front of their noses. The bobber should be clipped on the line so that the minnow swims just above the cover. On days when the crappies are sluggish, the bait may hang for a few minutes before a fish responds. When they are aggressive the bobber often dips immediately after the cast.

Fish wood cover methodically, probing every nook and cranny. When the fish quit biting, it is usually better to move to new cover than wait for the fish to turn on again.

A final thought on Armstrong crappies concerns conservation. Good crappie fishing can be found here, but like most waters, there isn't an endless supply of fish. Keep only what you know you'll use. Don't overdo it. Panfish such as crappies can be over-harvested.



Corps of Engineers Lakes

Lakes that fall under the jurisdiction of the U.S. Army Corps of Engineers have special regulations regarding the use of personal flotation devices (PFDs). PFDs must be worn by:

- All non-swimmers.
- All persons in boats less than 16 feet long.
- All persons in canoes.
- Children under nine years of age.

These regulations apply to both Crooked Creek Lake and Mahoning Creek Lake.—JK.

SEASON FOR A SULPHUR HATCH

BY
CHARLES R. MECK



A fine mist covered my glasses as the three of us followed a narrow path down to the stream. For late May it turned out to be a downright cold and dreary day. Weather forecasters predicted a high of 55 degrees and a day-long drizzle. Just our luck—Bryan Meck of York, Vince Gigliotti of Punxsutawney, and I selected this day for a fly-fishing trip. When we arrived at the stream at 11 a.m., the three of us debated whether or not to brave the elements and gear up.

We stared upstream at the head of a riffle and saw a few mayflies struggling on the surface. They didn't struggle very long—at least a half-dozen trout fed in different sections of the rapids on these animated yellow duns. We no longer had to decide whether or not we'd fish—Bryan and Vince immediately headed back for the car and their gear.

While the two gathered their gear, I examined a few mayflies. All the insects appeared to be what anglers call sulphurs.

Vince headed upstream armed with a size 16 Sulphur Dun tied onto his tippet. Bryan waded downstream with an orange cream dun tied onto his line. I decided to follow Vince upstream a few hundred yards and watch the hatching activity. In front of Vince, in a hundred-foot glide, no fewer than six trout fed sporadically on this late-morning sulphur hatch. Almost each trout covered took Vince's Sulphur pattern. In a half-hour, Vince moved upstream to another riffle-pool configuration. There he successfully covered another six risers to the sporadic hatch.

Shortly after noon I headed downstream to see how Bryan was doing during this protracted sulphur hatch. By now the drizzle had ended but the leaden-gray skies still kept the air cool for this late a day in May. Bryan had also experienced the same success that Vince had upstream. While I stood and watched, Bryan landed and released a heavy 15-inch surface-rising brown trout.

WE BOTH SENSED WHAT WAS ABOUT TO HAPPEN—A SHORT BUT EXPLOSIVE SULPHUR HATCH. TROUT FED SO CLOSE TO US THAT I COULD HAVE NETTED SEVERAL IN FRONT OF ME.



Charles R. Meck

Sulphurs continued to appear and trout fed on them well after 3 p.m. We quit before the evening sulphur hatch would normally appear, around 8 p.m. We had just experienced well over five straight hours of an intermittent sulphur hatch. With an overcast sky, duns appeared on the surface and trout eagerly fed on them all day long. What an unusual early season bonus—an extended sulphur hatch on the water for more than five hours. Both Bryan and Vince easily matched the hatch and the two caught more than 30 trout on that “bad” day for a sulphur hatch.

But the sulphur hatch normally appears just at dusk on Pennsylvania waters. The following is much more typical.

Fred Templin met me on the river at 8 p.m. He had already missed much of as concentrated a light cahill hatch as you'll ever see. However, enough cahills on this late May evening did still appear to allow Fred to catch a half-dozen trout with a size 14 imitation. Soon the cahill hatch ended and for a few minutes the now-barren surface of this central Pennsylvania stream became quiet. Fred and I continued to cast light cahills out to a riffle in front of us where trout had fed 15 minutes before—but to no avail.

EXPLOSIVE HATCH

Both of us quit for the minute and changed from the Light Cahill to a size 16 Sulphur Dun pattern while we still had enough light to see. We both sensed what was about to happen—a short but explosive sulphur hatch. About 8:30 a few sulphur duns popped up to the surface in the shallow riffle in front of us. Soon these duns were joined by thousands of others. The shallow riffle where nothing emerged minutes before was now covered with pale yellow duns struggling to take off. Rings from rising trout now broke the once-quiet surface. At least two dozen fish fed on emerging duns in front of us. Trout fed so close to us that I could have netted several in front of me.

Fred and I systematically cast to risers. After three or four casts, one of the risers mistook our artificial for a natural. Another three or four drag-free casts directly over another riser and it, too, took the fly. This intense rising activity lasted far too short—it seemed as if most of the action ended in a few minutes—but the hatch actually continued almost unabated for a half-hour. At dusk Fred and I compared notes and found that we had each hooked more than a dozen trout during that explosive sulphur hatch.

WHEN SULPHURS APPEAR

The more you know about the sulphur hatch, the better you'll be able to fish it. Normally the sulphur mayfly appears at dusk for two to four weeks, usually from mid-May to mid-June. However, as we saw earlier, add a cool, cloudy day and a light drizzle in late May, and you often find the sulphur hatch appearing all day long. Additionally, on the first few days the sulphur hatch appears, you often see these mayflies appearing unexpectedly for several hours late in the afternoon.

UNCONVENTIONAL PATTERNS

Patterns to match the hatch vary from stream to stream. I recommend you take some unconventional patterns with you when you next meet this hatch. Let me explain.

I had tied a few size 16 Crystal Sulphur Comparaduns to test on the first sulphur hatch of the season. For the past few days I had seen adequate hatches of the mayfly in late afternoon. I now waited on the river for a heavy burst at 8:15 p.m. I anticipated a good hatch that evening so I could try this western method of imitating an emerging sulphur. I had tied a normal comparadun made with wings of deer hair, a body of yellow orange polypropylene, and a tail of light deer hair. On top of the tail I had tied in a piece of dark-brown Z-lon about as long as the hook shank, extending out over the tail and trailing the hook. This dark-brown Z-lon imitates the dun just emerging from the shuck, and the many crippled sulphurs you see on the surface, unable to escape from the shuck.

Sulphurs delayed their appearance that hot evening almost until dark. Then, with an unbelievable burst they appeared on the surface by the thousands. Where just seconds ago I had seen no trout rising, two to three dozen fish freely took the emerging orange mayflies.

I anxiously cast the sulphur pattern with the trailing shuck over what looked like a

WITH AN UNBELIEVABLE BURST, SULPHURS APPEARED ON THE SURFACE BY THE THOUSANDS. WHERE JUST SECONDS AGO I HAD SEEN NO RISING TROUT, TWO TO THREE DOZEN FISH FREELY TOOK THE EMERGING ORANGE MAYFLIES.

heavy trout. On the second perfect cast, the comparadun disappeared under the surface with just the slightest rise. The rod bent and the line headed upriver. I horsed the green 17-inch fish into the net and released the Sulphur from its mouth. I realized the hatch wouldn't last more than 15 or 20 minutes more and I had plenty more trout to cover. I covered about half of three dozen rising trout before the hatch subsided.

Very few of the actively feeding trout refused the pattern with the trailing shuck. It took several drag-free drifts over a few of them before they struck, but they hit that crystal comparadun.



For the next week I hit that sulphur hatch every evening, matched it with a crystal comparadun, and had a string of successful matching-the-hatch episodes. You can experience the same success by fishing one of the many Commonwealth waters harboring a sulphur hatch and matching that hatch with a good imitation.

COMMON MAYFLY

Where can you find sulphurs in the state? The sulphur is one of the most common mayflies on Commonwealth waters. You can find heavy hatches on waters from the Maryland border to the northern part of the state. I have listed more than 70 state trout waters that hold this hatch (see the sidebar on page 11).

The hatch is also dependable. Once the hatch begins on a stream you can expect it to continue for two to four weeks. If during that time you experience an overcast, drizzly day, look for the hatch early.

You can find a half-dozen or more mayfly species that anglers loosely group together and call sulphurs, pale watery duns, or pale evening duns. Most of these mayflies can be copied on a size 16 or 18 pattern with a cream to orange-cream body. Many of these insects appear from mid-May until late July. The best hatches on most streams run from mid-May through mid-June.

One of the earliest to appear is also one of the largest. It (*Ephemerella rotunda*) makes up the best hatches across the state.

You see this particular species on many of the state's finest limestone streams like Falling Spring, Yellow Breeches, Little Juniata River and dozens of other hotspots.

Some streams and rivers in the state hold the smallish (matched with a size 18 pattern) pale evening dun (*Ephemerella dorothea*). If you find this species on one

of your favorite streams, you're in for some unbelievable matching-the-hatch opportunities. I've fished to hatches of this particular mayfly on one central Pennsylvania stream from early June until late July. Every evening on this stream for more than six weeks I could depend on a sizable dun and spinner fall from this species. When I matched the hatch or spinner fall with a size 18 dun or spent spinner, I had a successful evening.

NYPHS

Nymphs of many of these species have body colors of a ground earthen brown with a hint of olive. Use the nymph just before and at the beginning of the hatch. You can also attach a nymph in tandem. Tie on the comparadun or other dry pattern and attach a 30-inch piece of leader to the bend of the hook. Attach a nymph to the end of the tippet. By using this method you'll be able to catch those trout feeding on the surface and those feeding on emerging nymphs. When trout strike the nymph pattern look for your comparadun to sink—that indicates a strike on the trailing pattern.

It's also important to carry an ample supply of patterns to copy the spent spinner. Use pale-tan polypropylene to copy the body color and tie in spent wings of poly. On many occasions I've used a pattern copying the emerging dun at dusk, but the spinner fall became more important than the dun. To compensate for trout feeding on a sulphur spinner fall when you expect them to feed on a dun, attach a 30-inch piece of tippet material to your pattern, copying the dun. Tie that in just as you did above—connecting the tippet to the bend of the hook of the dun with an improved clinch knot. Then on the tippet tie on a pale-tan spent-wing spinner.

Look for the heaviest hatches and spinner falls to appear in shallow to medium-depth riffles. Spinners often form in a ball over a set of rapids. Here the females mate and lay their eggs. Trout feed readily on these spent spinners. You'll be able to detect the female spinners—they hold a yellow ball of eggs under their abdomens.

Next time you encounter a "lousy" day in late May or early June, will that deter you from fishing? If you know a good Pennsylvania stream or river that harbors a respectable sulphur hatch, head out there. Look for the hatch to appear early. Stay on the stream until dark when a burst of activity should occur. You, too, might just hit a memorable fishing trip on a "lousy" day for a sulphur hatch.

Charles R. Meek



SOME KEYSTONE STATE WATERWAYS WITH SULPHUR HATCHES

- | | |
|-----------------------------|------------------------------|
| Little Juniata River | Slate Run |
| Spring Creek | Kettle Creek |
| Piney Creek (Blair County) | Cross Fork Creek |
| Clover Creek (Blair County) | Young Woman's Creek |
| Canoe Creek (Blair County) | Hammersley Run |
| Yellow Creek | Oswayo Creek |
| Big Fishing Creek | Allegheny River |
| Fishing Creek | Driftwood Branch |
| (Columbia County) | Sinnemahoning Creek |
| First Fork | Penns Creek |
| Sinnemahoning Creek | Elk Creek |
| Yellow Breeches Creek | White Deer Creek |
| Falling Spring Creek | Logan Branch |
| Bald Eagle Creek | Letort Spring Run |
| (Blair County) | Big Spring Creek |
| Loyalsock Creek | Muddy Creek |
| Little Lehigh | Codorus Creek |
| Bowman's Creek | Kishacoquillas Creek |
| Clarks Creek | Blacklog Creek |
| Lackawaxen River | Big Cove Creek |
| Lehigh River | Standing Stone Creek |
| Delaware River | Caldwell Creek |
| Mud Run | Pine Creek (Forest County) |
| Brodhead Creek | Oil Creek |
| Dyberry Creek | Slippery Rock Creek |
| Valley Creek | Neshannock Creek |
| Tulpehocken Creek | Cool Spring Run |
| Ridley Creek | Little Sandy Creek |
| French Creek | North Fork Red Bank Creek |
| Octoraro Creek | Spring Creek (Clarion Creek) |
| Donegal Creek | West Branch Clarion River |
| Cedar Creek (Lehigh County) | East Branch Mahoning Creek |
| Monocacy Creek | Loyalhanna Creek |
| East Fork | Laurel Hill Creek |
| Sinnemahoning Creek | Cove Creek |
| Muncy Creek | Little Mahoning Creek |
| Little Pine Creek | Wills Creek |
| Pine Creek | Brush Creek |
| | (Somerset County) |

A New Shad Lure:



The Flutter Spoon

by John W. McGonigle

Think shad, think shad darts. That's been the prevailing wisdom for several decades, but two avid Bucks County shad fishermen are rapidly changing that view. An upstart lure known as the shad flutter is making tremendous inroads into the ranks of shad fishermen long accustomed to using shad darts.

The 1991 winner of the Forks of the Delaware Shad Tournament used a shad flutter to catch his winning entry, as did the second-place winner of the same tournament in 1989.

Craig "Nish" Nishiyama, of Warrington, PA, has been fishing since age four. He was influenced and encouraged greatly by both his father and his uncle, who in turn were influenced by Nishiyama's grandfather. His grandfather was a Japanese immigrant who owned his own large commercial fishing boat.

A visit to Nish's office/den quickly shows where his priorities lay: family, biology and shad fishing, with numbers two and three subject to change during the annual spring shad run. In a takeoff of a popular

celebrity endorsement, a poster of Nish with the caption, "Nish Knows Shad," hangs prominently next to the pictures of Nish and his children posing with shad. Another clue to his passion is hanging on his wall in the form of the quote, "Fishing is not a matter of life and death. It's more important than that."

As a kid, Nish was "adopted" by some of the regulars who fished the Connecticut River in Enfield, CT. The old-timers who took Nish under their wings were a long-time but loosely knit group of fishermen who, like the shad, showed up when the shad were running. Among the group, first names

An upstart lure known as the shad flutter is making tremendous inroads into the ranks of shad fishermen who are long accustomed to using shad darts.

only were the rule rather than the exception, and today most of them are gone.

These old-timers used dacron line and baitcasting reels with a gold hook tied below two or three colored beads. This was a precursor of shad darts, and they worked relatively well. Shad darts and spinning gear then came into vogue, and later, a prototype of today's shad flutter appeared.

After graduating from Juniata College in 1972, Nish took a teaching job in Bucks County, but he returned to fish for shad in the Connecticut and Farmington rivers. On one of these trips he saw his first crude shad flutter. His first flutter was given to him by "Old John," a regular on Connecticut's shad rivers, with whom Nish fished for years. Nish considered John with the same awe as Hemingway's Santiago in the classic *The Old Man and the Sea*.

Nish brought the first shad flutter, crude as it was, to Pennsylvania to fish the Delaware River shad run in the mid-1970s. He made his own flutters at a fly tying vise and began to experiment with refinements. Nish's lures were made then for his own

use. Occasionally they made their way into the tackle boxes of friends and fishermen he met along the river.

The shad flutter got a shot in the arm about seven or eight years ago when Nish gave some of his unheralded lures to Dave Windholz, long-time owner of Dave's Sporting goods, in Doylestown. Windholz's son-in-law, Brady Overturf, liked what he saw and started making his own shad flutters for himself, and later for friends. After a year or two, Overturf sold shad flutters through Dave's, making Dave's the first store in the Delaware River area to sell shad flutters. Two years ago, Overturf widened his range and sold flutters through several other area tackle shops.

Nishiyama, a customer and friend of Dave's, spoke with Overturf and a partnership was formed between Nishiyama and Overturf. Together they refined the lure and started to expand their marketing area.

Overturf, like Nish, has long been an avid shad fisherman. During the shad run he keeps his boat on top of his car at all times. The manager of an art gallery, Overturf is an artist and photographer and has used his experience in the field of art to make the design and color patterns of the shad flutters more sophisticated.

Originally unpainted, Nish painted a flutter chartreuse and added an eye. They then went to two colors, similar to a shad dart, because of tradition and to make the lure more easily visible.

Other improvements included pearlescent finishes, multi-colors, adding a clear coat over the colors, bent hooks to change the lure's action, using bioluminescent paint (to glow in the dark), and adding glitter coats.

Overturf introduced one refinement on the flutter's finish because of a trick an old-timer once showed him while fishing the Delaware. The older gentleman caught a shad and let the scales fall into the water as he scaled it. He then cast his shad dart into the water where the scales were dispersing with a glitter, and did, "quite well," says Overturf. The technique was similar to chumming, but it gave Overturf his idea of adding a glitter overcoat to the finish for the flutter.

Nish's biology background provided the impetus for the bioluminescent finishes on some of his flutters. "Shad are anadromous. They spawn in freshwater but live in saltwater," says Nish, "and while they are in the ocean, they feed on krill, a saltwater shrimp with bioluminescent qualities." He says that bioluminescence is the production of light by living organisms. Perhaps the most commonly known example is the firefly.

The shad flutter is a small, light lure, basically a small willow leaf blade soldered to a long-shanked gold hook. Painted with various color combinations and finishes, it can be fished several ways.

Overturf fishes primarily from a boat and uses downriggers most of the time, using a depthfinder to locate fish. Last month's *Angler* detailed the technique.

Nish, on the other hand, fishes primarily from shore or he wades, which he admits comes from the influence of his mentors.

Nishiyama likes a 6 1/2-foot graphite spinning rod of medium action coupled with a spinning reel with a smooth drag. He then spools up with a six-pound premium monofilament line.

The shad flutter is a small, light lure, basically a small willow leaf blade soldered to a long-shank gold hook.

Nish attaches a sinker with built-in swivels on each end to his line, and then adds a 24-inch piece of mono to which he attaches his shad flutter. Occasionally he adds a single bead just above the flutter. If he does, it is always green or pearl-colored.

To fish his rig, Nish casts to the near edge of the channel, and slightly downstream. He keeps tension on the line to detect strikes, and lets the lure swing naturally with the current.

As a variant, he casts to the same spot but then lifts his rod tip. Then he lowers it very slowly, making sure to maintain contact with the line. He raises and lowers the lure several times, with most of his hits occurring when the flutter is dropping. Says Nish, "Many people make the mistake of dropping the rod tip quickly and getting slack in the line, losing the ability to detect a strike."

On rare occasions, Nish uses a variation of his standard rig. He uses a shad dart in place of the swivel and sinker. "It's possible to get a double hook-up," says Nish, "but most of the time the shad hit the flutter."

Nish likes to put at least a little bend in his flutter's hook when he fishes it, and Overturf prefers to leave his straight. Both anglers succeed, so try both and find out what suits you.

Both anglers vary the depth of the lure when fishing for shad. "Don't believe the old saying that if you're not losing lures you won't catch fish. It's not true," he says.

Geography has put an end to their partnership and both continue to make and market shad flutters. Nishiyama and Overturf remain friends and agree on many key points. They both promote just getting out and taking the kids. Both primarily practice catch and release, and both encourage anglers to keep the waterways clean by not littering.

"Don't put the flutters away from shad season—they're dynamite on trout," says Overturf.

You know what? I believe him!

Pennsylvania ANGLER

Shad flutters are available in many tackle shops in the Bucks County region and along the Delaware River.



Craig "Nish" Nishiyama, of Warrington, PA, makes his shad flutters.

Chasing Marburg Bluegills

by Jim Gronaw

It happens every spring. Tree buds pop out with the increasingly warm days. The forsythia bushes display their yellow glow and front lawns thicken up and beg for that first cutting. A strange yet predictable change occurs with Keystone State anglers, too. Some gear up for a jump start on bass, and others can't wait to hit the icy streams for the trout opener. Others shun the hype of these glamour species and instead aim their efforts at more common fare.

Such is the case at York County's Lake Marburg. Anglers there pursue the bluegill with the persistence and skill of any tournament bass addict or fly rod trout fanatic.

Indeed, fishing for 'gills at Marburg is unlike any other panfishing. Most 'gilling relates to shoreline cover, but Marburg's pug-nosed specimens are deeper dwellers. Hence, those knee-deep shoreline tactics seldom work there. Instead, finesse tactics with slip-bobbers, tiny hooks and distance casting are more the requirements for success. With its ultra-clear water and deeper spawning habitat, Marburg 'gills tend to be deeper and more skittish than those found in other lakes.

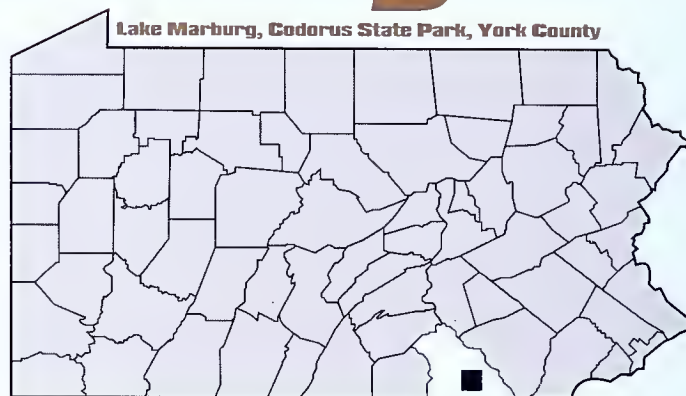
Bluegill movement

In April, large schools of eight- to 10-inch 'gills stage in deep water (eight to 25 feet) in the vicinity of the Marburg bridges. As the water temperature hits the lower 50s, these schools move up and down the length of the bridge spans. They can be found as shallow as three feet or as deep as 25. Because of the clear water and consistent boat traffic, these boss 'gills are very spooky and often disperse, re-school and move about when threatened. Catching them is no easy game.

As the water temperature approaches the 60-degree mark, these schools tend to elevate and suspend from four to eight feet below the surface. At this time, wind-blown aquatic hatches of midge larvae and other insects tend to be funneled into the "bottleneck" areas of the spans. When these morsels stack up in the first several feet below the surface, tanker 'gills follow. They need to fatten up for the hectic rituals of the upcoming spawn. Again, boat traffic and angling pressure can put them down.

When the water reaches the 65-degree range (about the second week in May) the larger specimens move from the deeper water and seek suitable spawning areas. I have encountered some bedding 'gills as deep as 18 feet. Heavy boat traffic and ultra-clear water force skittish bulls to spawn deep. They, too, can be spooked off the beds.

The actual spawn at Marburg does not take five or six weeks as in some reservoirs of comparable size. They get in, get done and get out. Some fish spawn shallow in the upper reaches of the lake, but many big fish bed in eight to 14 feet of water. They are extremely line shy and hook shy. Marburg 'gills are no pushovers.



Tactics

For bridge angling, Marburg regulars Gary Livesay and Charlie Wallace recommend long, seven-foot ultralight spinning rods with quality low-visibility lines that test four pounds. They prefer to ease up on bridge sites with a trolling motor, anchor quietly and make long-distance deliveries to the schooling fish.

When it is windy, hawg 'gills seem to be drawn to the surface. They also tend to hang around the shadowy edges of the bridges on sunny days. Using slip-bobbers to adjust the depth, anglers hook garden worms, mealworms or waxworms and make long casts to the fish with the wispy, seven-foot rods.

The key to success on these pre-spawn, suspended fish is to keep your distance, make long casts and locate the depth of the bluegills. The big panfish could be anywhere from three to 15 feet. Good bridge fishing usually occurs from April to mid-May.

Don't have a boat? That's okay, because there are plenty of fish to be caught from the rocky banks around the bridges. Again, longer casts with adjustable slip-bobbers are much more versatile than shorter, standard ultralight gear. Some Marburg regulars are going to the 10- to 12-foot European match rods to get greater distance and "drop" from their slip-bobbers.

By late May or early June, bluegills will have abandoned their deeper haunts in quest of suitable spawning sites. Some hawg 'gills will roam the back ends of some of the shallower coves, but most bulls bed off gravel points and bars in eight to 18 feet of water. An LCD or a depthfinder is a helpful aid in locating this activity. When you find some fish, ease off and once again make those long, soft deliveries to those love-sick slabs. These bedding bulls are extremely hook shy, so be sure to cover those tiny hooks entirely with the bait for best results. When an area stops producing, give it a rest for 15 minutes. If no dice after the pause, seek another nesting site.

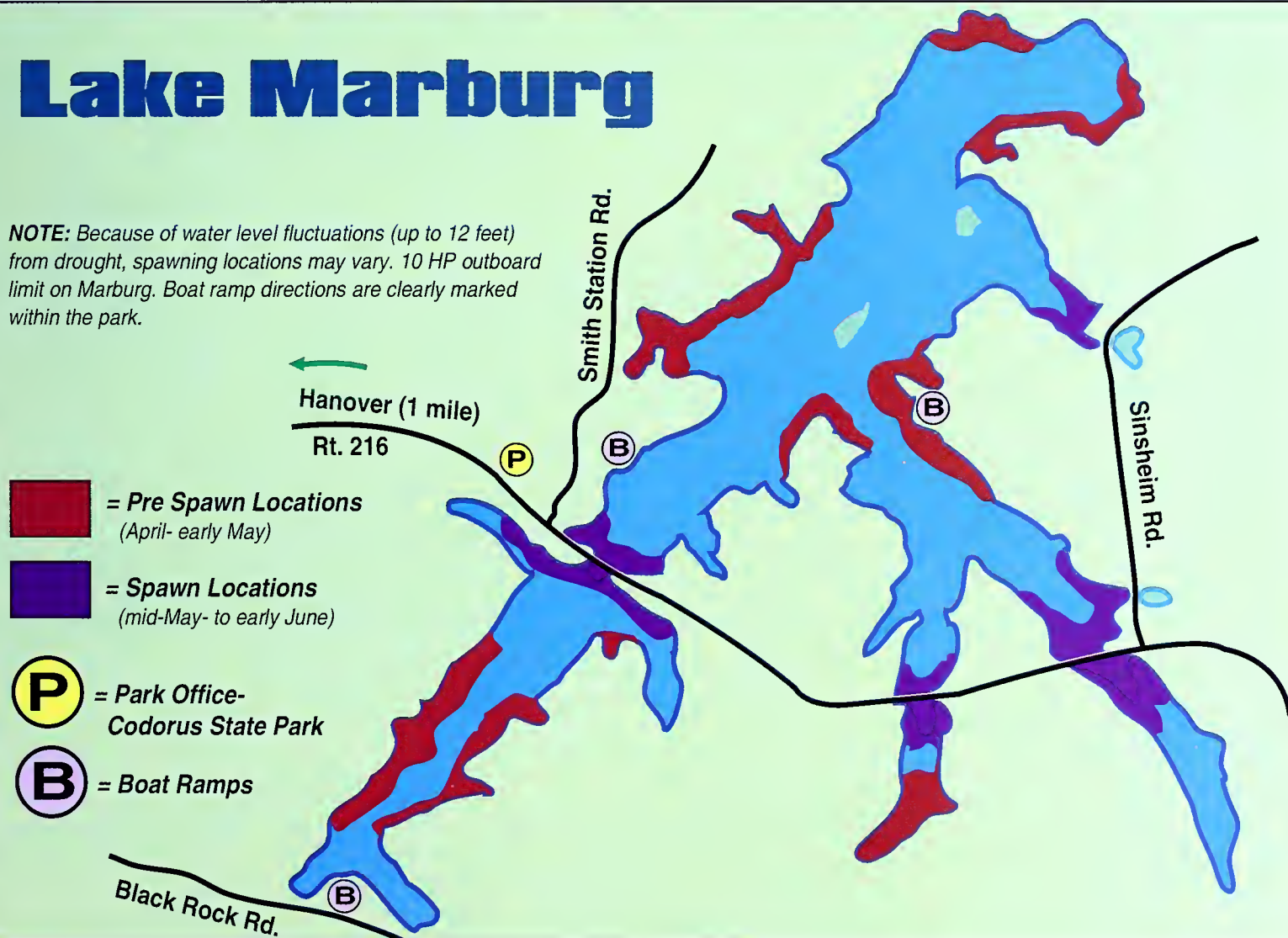
Many anglers think it is senseless to "chase" after a fish as common as the bluegill. But Marburg bluegills are a cut above those found in most public waters. Many run just shy of the 10-inch mark and weigh between 10 and 16 ounces. I have seen fish that approached the 12-inch mark finning below bridge piers and on spawning beds. The lake record is two pounds, eight ounces, taken in 1982. That trophy was one ounce short of the state record. Numerous fish turn up each year that run well over a pound.

The average size of the fish makes Marburg bluegills worth chasing. One blustery April evening in 1991 from the bank I caught a quick 18 "hammerhead" 'gills on garden worms. My six largest 'gills weighed a total of 5 1/2 pounds. I don't mind chasing after fish like those.



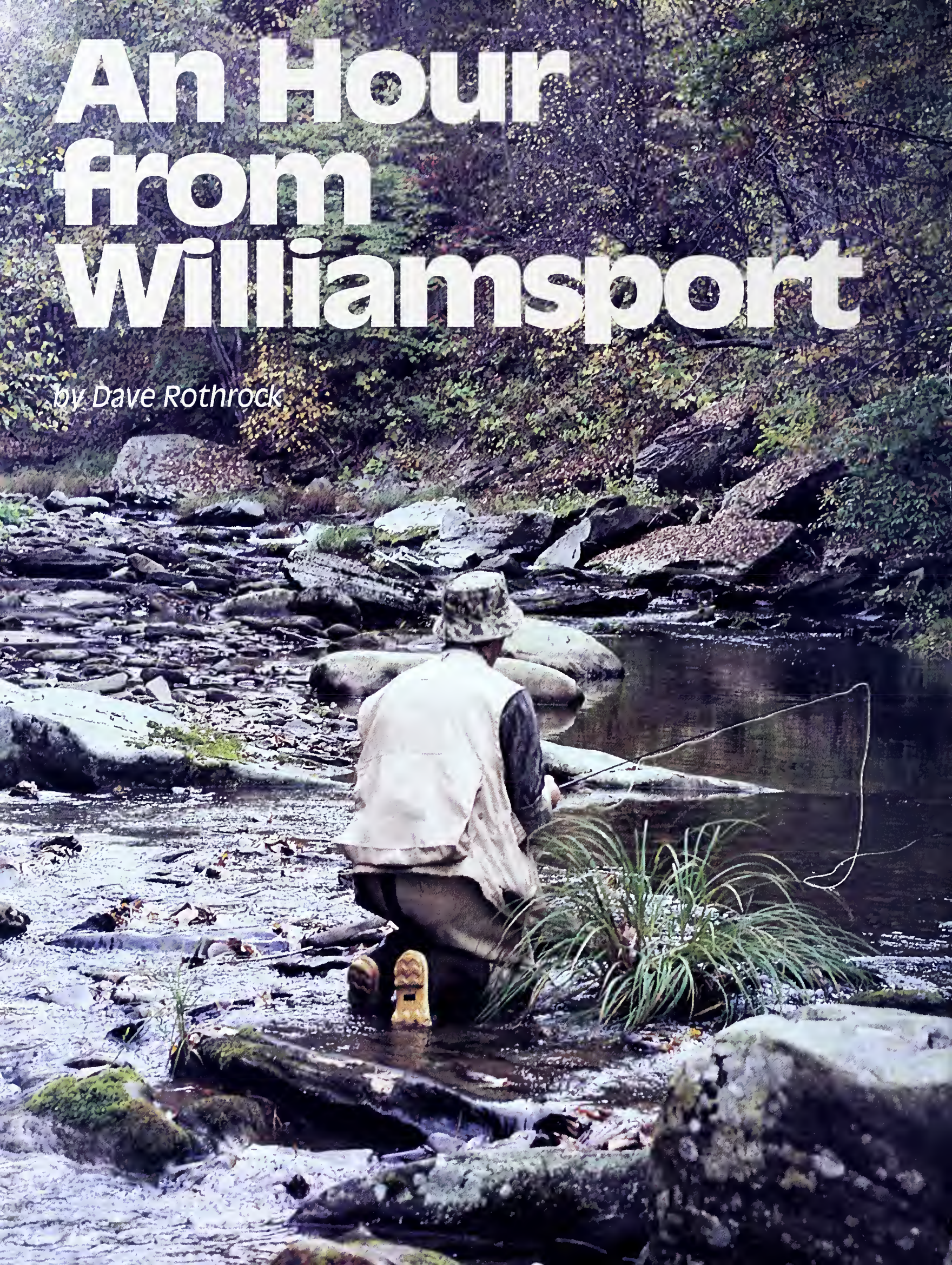
Lake Marburg

NOTE: Because of water level fluctuations (up to 12 feet) from drought, spawning locations may vary. 10 HP outboard limit on Marburg. Boat ramp directions are clearly marked within the park.



An Hour from Williamsport

by Dave Rothrock





Dave Rothrock

Within an hour of Williamsport is located some of the best trout fishing Pennsylvania has to offer. That makes it some of the best fishing in the eastern U.S. There is a real variety from which to choose, from large streams to small brooks, from clear freestone streams to famous milky limestone-influenced streams. Some of these streams contain populations of wild trout, and they are located in near-wilderness settings. An angler has the opportunity to experience Pennsylvania trout fishing at its best, all within an hour of Williamsport.

Lycoming Creek

To the north of Williamsport is Lycoming Creek. This is a good-sized stream that can provide productive fishing from the first day of the season through June. Lycoming Creek is primarily a put-and-take fishery. It is stocked from Roaring Branch, about three miles above the village of Ralston, down to Cogan Station.

Route 15 provides access from Cogan Station upstream to Trout Run, and Route 14 upstream to Roaring Branch. Lycoming Creek warms to marginal levels after June and the best fishing is just downstream from the mouths of its coldwater tributaries.

Two tributaries of Lycoming Creek are worthy of note. Rock Run enters Lycoming Creek at Ralston. This stream is known for its scenic beauty. Rock Run Road follows the stream from near its mouth upstream to a bridge about a half-mile below Hawk Run. However, the stream flows through a narrow ravine, so you need to watch for the well-used paths that lead down to the stream. Rock Run flows clear with waterfalls and deep pools awaiting the adventurous angler. The stream is stocked and there are some wild brown and native brook trout.

Grays Run is the best of Lycoming Creek's tributaries. Access is via Grays Run Road off Route 14, three miles north of Trout Run. From its mouth upstream to the first bridge, a distance of just over two miles, Grays Run is managed as a wild trout stream and is not stocked. There are some nice browns and beautifully colored brookies in this section. From the bridge upstream 2.2 miles the stream is restricted to fly fishing only. This section is stocked and also holds some wild trout.



Dave Rothrock

Loyalsock Creek

The Loyalsock is a large stream that relies on stocking by the Fish and Boat Commission to sustain its trout fishing. From the beginning of the trout season until the water warms, this stream can provide some very good fishing. Loyalsock Creek is stocked from Polebridge Run, about three miles above Worlds End State Park. Route 154 parallels the stream from there down to Forksville. Route 87 provides access from Forksville down to the end of the stocked water at Loyalsockville. There is a fly-fishing-only section from Sandy Bottom upstream to the Lycoming County line, a distance of 1.4 miles. Wading can be difficult on the Loyalsock, particularly if the stream flow is heavy from spring rains.

There are several productive tributaries to Loyalsock Creek. The Little Loyalsock Creek is the largest of these tributaries and it joins the main stream at Forksville. The Little Loyalsock is a put-and-take fishery. It is an attractive stream and it can provide good early season angling when the main stream is too high to fish.

Elk Creek enters Loyalsock Creek above the village of Hillsgrove. A blacktop road parallels Elk Creek from its mouth upstream to Route 154 at Lincoln Falls. This stream is stocked, but it also holds wild trout.

Wallis Run enters Loyalsock Creek north of Loyalsockville and it provides angling for both stocked and wild fish.

Muncy Creek

Muncy Creek flows into the West Branch Susquehanna River at the town of Muncy. From Hughesville to Picture Rocks, Muncy Creek is a good-sized stream and it carries a full flow of water early in the season. As the season progresses, the stream level drops dramatically and anglers find the trout in the deeper pools. Muncy Creek is stocked from the village of Nordmont downstream to Muncy. Route 220 provides access to the stream from Nordmont to Hughesville.

Fishing Creek

Within an hour of Williamsport, Columbia County's Fishing Creek is well-known for its trout fishing. This stream is stocked for more than 20 miles from its source above Grassmere Park downstream to Lightstreet. The stream also holds some wild browns and native brookies. There is a 1.1-mile catch-and-release section at Grassmere Park. This area receives most of the fishing pressure but it holds trout all year long. Fishing here can be very difficult at times, particularly in the fall during low water conditions. The trout may rise steadily, but



Doug Stamm

Williamsport is the hub of some of Pennsylvania's best trout fishing. With so many fine streams within an hour's drive of the city, it can be difficult at times deciding which stream to fish.

you must have the right pattern and proper presentation to score.

There are several posted sections along Fishing Creek, but there is still a lot of stream to explore. It is possible to get away from the crowds by fishing sections of the stream that flow a distance away from the road. There are some large, deep pools downstream near Orangeville and some lunker browns are caught here on occasion.

White Deer Hole Creek

There are two streams south of Williamsport worthy of coverage. White Deer Hole Creek is stocked with trout from Elmsport downstream, and this section offers good fishing from opening day through June. Route 44 parallels the stream. In the upper reaches, White Deer Hole Creek flows through Bald Eagle State Forest and in this area the stream is not stocked. However, there are good numbers of wild trout. From Elmsport, Gap Road provides access to the upper reaches of the stream.

White Deer Creek

Travel a little farther south and you come to another stream similar in name, but don't confuse the two. White Deer Creek is paralleled by I-80, yet the stream is heavily wooded and provides an angler with an opportunity to cast for trout in a pleasant setting. Access from I-80 is via the Mill Run exit.

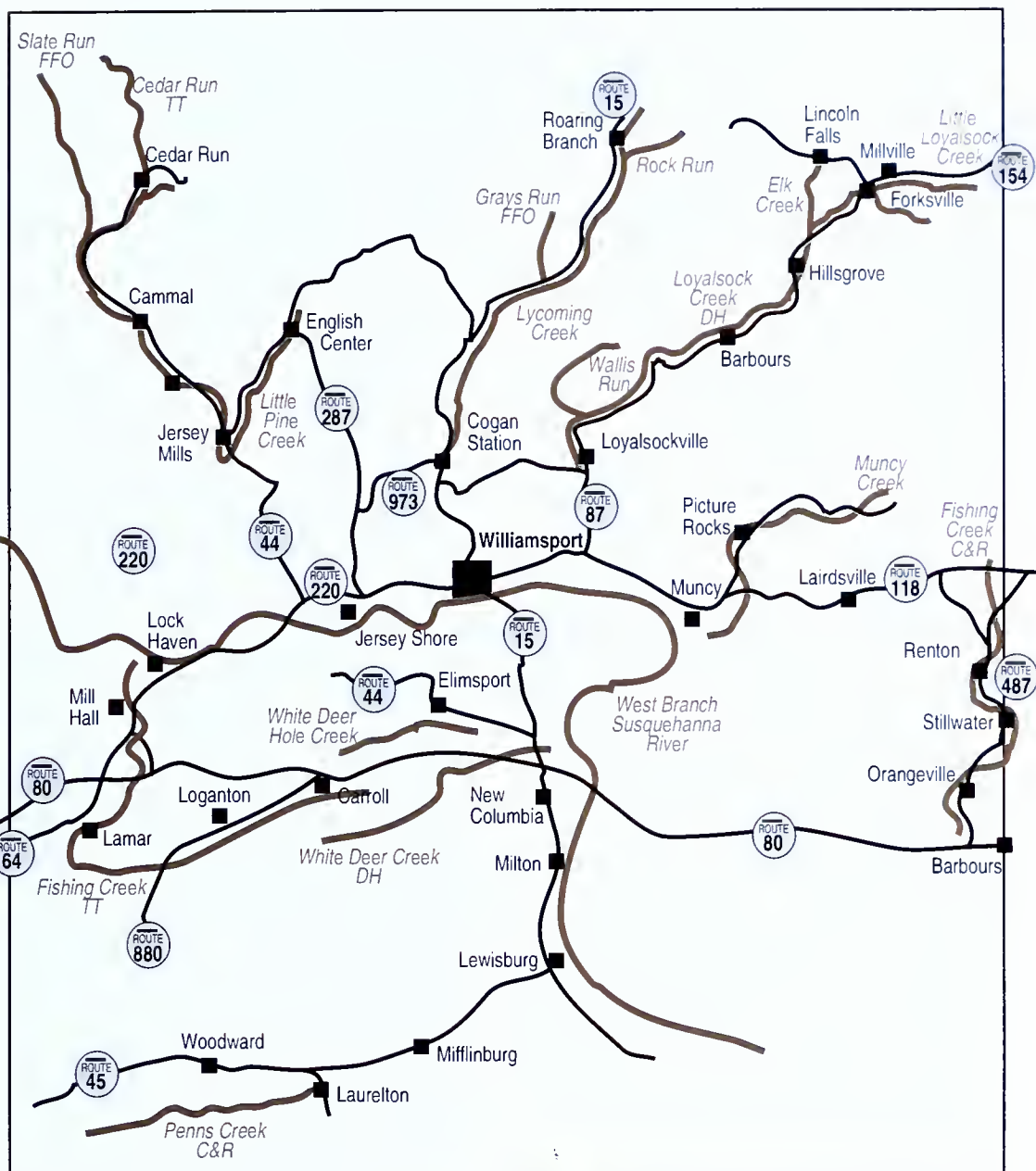
A delayed-harvest, fly-fishing-only area is located on the upper section of the stream. This 3.1-mile special-regulation area begins at the Union/Centre County line and continues downstream to the Cooper Mill Road bridge. The stream is relatively small in its upper reaches, but there is a good mix of pools and riffles for the angler to explore. In addition to stocked trout, the stream holds a fair population of wild trout.

Penns Creek

It is just about an hour from Williamsport, but famous Penns Creek is definitely worth the trip. The 3.9-mile catch-and-release area extends from Swift Run downstream to Cherry Run. Access to this section of stream is by SR 3002 from the village of Weikert. This route provides access only to the lower area of the special-regulations area and ends at the parking lot and a gate. From here the stream is accessible by walking.

Penns Creek is a large, limestone-influenced stream and in normal flow its water appears milky to murky. Unfortunately, rains muddy the stream quickly and it usually takes several days for the water to clear. Its rich alkaline water makes Penns Creek very productive.

For the fly fisher this stream has an incredible number of hatches that can provide challenging angling from March into November. The many different hatches on this stream can actually create some problems for the fly fisher. If several different flies are active at the same time, it can be difficult to figure out which one the trout are taking. I have been on Penns Creek in early June and witnessed three different



map graphics- Ted Walke

mayflies and two different caddis flies hatching at the same time.

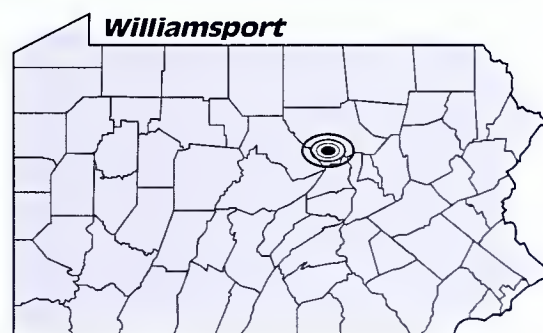
The catch-and-release area of Penns Creek is managed as a wild trout fishery with good populations of brown trout. Occasionally you may fool a crimson-sided rainbow that has migrated in from a stocked area. After these fish have been in the stream for a while, their colors brighten.

As the season progresses, Penns Creek warms considerably and angling is by far the best early in the morning until the water cools again with the arrival of fall.

Penns Creek is best known for the Green Drake hatch that occurs around Memorial Day. However, there are several different hatches that can provide some great fishing, including Sulphurs and Slate Drakes.

Fishing Creek

There is no question that Fishing Creek located in Clinton County west of the city of Lock Haven is one of the top trout streams in the Commonwealth.



Near the village of Lamar there is a five-mile section of Fishing Creek known as the Narrows. This area is managed under trophy trout regulations. This stream has a reputation that extends beyond the boundaries of the Keystone State, and as a result, fishing pressure is heavy throughout most of the season.

Although Fishing Creek is a limestone-influenced stream, like Penns Creek, the stream is quite different from the spring creeks of southcentral Pennsylvania. It has a mix of pools, riffles and pocket water to tempt any angler.

Springs add a lot of cold water to Fish-

ing Creek and water temperatures rarely rise above the mid-60s even in the hottest summer weather. The stream is managed as a wild trout fishery and native brookies and wild browns abound.

Below the narrows and downstream to where Cedar Run enters above Salona, the stream is not stocked and there are still good populations of wild trout. There are short sections of stream that go completely dry during summer because most of the flow is underground. From the mouth of Cedar Run down to Mill Hall the stream is stocked and there are good numbers of wild fish, too. The stocked section is fished very heavily from the season opener through June.

Pine Creek

Pine Creek is a very large stream by eastern standards, at places nearly 200 feet wide. It takes about an hour to reach the village of Cedar Run, but from there downstream to Waterville, a distance of almost 20 miles, there is a lot of water to explore. Pine Creek is strictly a put-and-take stream and fishing usually holds up well into the middle of June. Several miles upstream of Cedar Run at the village of Blackwell, Babb Creek contributes its mine acid-tainted water to Pine Creek. This has a marked effect on the stream, resulting in diminished hatches from here on downstream. The Quill Gordon and Hendrickson hatches are very heavy above Blackwell, but below Babb Creek these hatches are very sparse.

When Pine Creek has an ample flow, rafters and canoeists are on the stream in incredible numbers, especially on weekends. Fortunately, confrontations between them and anglers are rare. When Pine Creek is high and roily, particularly early in the season, anglers would do well to consider some of the area's smaller streams. If you decide to fish in these conditions, do so with extreme care. Route 414 parallels Pine Creek from just above Waterville upstream past Cedar Run.

At the village of Waterville, Little Pine Creek enters Pine Creek. From its mouth upstream to Little Pine Dam at Little Pine State Park, the stream is good-sized despite its name. Here the stream is stocked and anglers regularly pick off a few wild trout. This is because Little Pine Dam's water is released from the top, and that water warms quickly after Memorial Day. There are some properties on the lower section that are posted against trespassing.

Little Pine Dam is a 90-acre impoundment that is heavily stocked with trout and it can be fished from shore or by boat.

Little Pine Creek above the dam is much

different from the stretch below. The stream is stocked from English Center downstream to just above the dam. The stream also holds fair numbers of wild trout, both browns and brookies. This upper section of Little Pine Creek has clear water, and although there are some long, shallow stretches, there are some good holding pools and good pocket water. A road parallels the entire stocked area and access is easy. Little Pine Creek is heavily fished from opening day until after the last stocking, usually in late May.

Slate Run

At the village of Slate Run on Route 44, a stream by the same name adds its cool flow to Pine Creek. Slate Run is under fly-fishing-only regulations for 6.5 miles from its mouth upstream. This stream holds very good populations of trout, and this is not its only attraction. Like other streams in the Pine Creek Valley, the valley through which Slate Run flows is breathtaking. In places, steep slopes rise several hundred feet from their base along the stream.

Slate Run has a fine mix of pools, riffles and runs to explore. The larger pools are even named. It is not uncommon to hear someone talk of having fished the Crooked Tree Hole or the Frying Pan Hole, for example. Slate Run Road parallels the stream up to Manor Falls. There are several areas to pull off the road and various trails lead down the side of the mountain to the stream. To reach the upper sections of Slate Run, turn right on Francis Road. Morris Run Road turns right off Francis Road and provides access to the middle section of the stream. Slate Run's tributaries, Morris Run, Francis Branch and Cushman Branch, to name a few, hold native brookies and wild browns.

Cedar Run

I cannot leave the Pine Creek Valley without covering what I believe is the best freestone stream in Pennsylvania. Cedar Run enters Pine Creek at the village of Cedar Run, about 10 miles north of Slate Run. The stream is managed as a wild trout fishery under trophy trout regulations for 7.2 miles. Since the implementation of these regulations the trout populations have increased to the point where they rival those of the more productive limestone streams.

Cedar Run is similar to Slate Run with its ledge pools and productive fast-water sections. The valley is rather steep and the forest provides a canopy that helps to keep the stream flow cool even during the heat of summer when the stream is very low. The largest of Cedar Run's pools is found

on the lower section of the stream from the mouth upstream to the first bridge. Mine Hole Run enters Cedar Run just downstream from the bridge. Although the road parallels the stream its entire length, access to some sections is difficult because of the terrain's steep slope.

The freestone streams in this area of central and northeastern Pennsylvania are subject to dramatic fluctuations in flow throughout the year. In early season with normal flows, these streams allow an angler to approach good holding water easily. The heavier currents help mask an angler's movements.

Low water presents a challenge. It is important to move very slowly and use caution when approaching the stream in low water. Use streamside cover to mask your profile. Trout, particularly those inhabiting the clear freestone streams, are always wary for predators and any movement can mean danger. Light lines, long leaders and delicate casts are a real advantage for low-water angling. I am convinced that if an angler can be consistently successful on a stream like Slate Run or Cedar Run in late summer, he can be successful anywhere.

Most of the freestone streams I've covered are blessed with fine hatches of mayflies, caddis flies and stoneflies. From the season opener through early May, mayfly hatches include Blue-Winged Olives, Blue Quills, Quill Gordons and Hendricksons. Gray, cream and olive caddis flies and little black and brown stoneflies can be found hatching early in the season, too. May's hatches include March Browns, Gray Fox and Sulphurs, in that order. Around Memorial Day the legendary Green Drake appears on a number of streams, but it lasts only a few days. In June, look for Sulphurs, Slate Drakes and Light Cahills, along with tan caddises and little yellow stoneflies.

Around late June, terrestrials become a more important part of the trout's diet. Ants, beetles and crickets are required inventory in a fly fisher's box.

The limestone streams have milky flows for much of the season and it is easier to approach good holding water and present a fly or lure without spooking the trout. These streams can be finicky at times. I've spent several hours on the stream knowing I was fishing over many trout. However, I couldn't fool them with any of my offerings.

Williamsport is the hub of some of the best trout fishing in the state. With so many fine streams within an hour's drive from the city, it can be difficult at times deciding which stream to fish!

Sweet Temptation: The Sugar Creek Watershed

by Linda L. Steiner

"All you have to know about Sugar Creek is the Grannom," said the fly fisherman. This small, dark caddis hatches in great numbers on the stream any time from the start of the trout season to the first part of May, depending on whether spring has been galloping in or dilly-dallying.

The Grannom is certainly Sugar Creek's claim to fame. But is this short-lived fly hatch really all there is to the waterway? Of course not. A stream, like a person, may be noted for one characteristic, but has a complex personality.

Sugar Creek and its watershed streams drain the glaciated low hills of northwestern Venango County and southwestern Crawford County. It flows into the warmer waters of French Creek in Sugar Creek village, above the picturesque Victorian town of Franklin. Its headwaters spread like tree branches northward, toward Townville and Titusville.

The main stem of Sugar Creek is an average size, surprisingly fertile freestone stream, with "good water quality," according to Area Fisheries Manager (AFM) Ron Lee. Sugar Creek is managed as a put-and-take stocked trout fishery, although it has tributaries with fine native brown and brook trout populations. One tributary is so good that it recently achieved Class A Wild Trout Water status and is no longer stocked.

So let's go fishing in Sugar Creek and its tributaries. Like any good dry fly angler, and most effective bait and lure fishermen, we'll cast our way upstream and sample all the watershed has to offer.

To reach the mouth of Sugar Creek, we travel north from Franklin on Route 322 and take the first left toward Sugarcreek (the village). We park near the road bridge over Sugar (the creek) and walk downstream past the railroad bridge toward French Creek.

Most of Sugar Creek and its tributaries are open to fishing. Even so, much is on privately owned land, and we're fishing through the graciousness of our landowner hosts. To ensure that anglers are welcomed back, we're always careful to park our vehicles off the roadway but not on yards and fields, not block driveways or farm roads, and to stay on fishermen paths or near the

stream bed when gaining access. When in doubt about where to park, or walk, or if we can fish, we always stop and ask. In most places, this is not a problem.

Reaching the mouth of Sugar at French Creek, we start to fish. Although a "bass" stream, in spring French Creek is cold and harbors trout that make their way down from



Sugar Creek. At the mouth is an island that confines the flow of Sugar along its near edge, especially during low water. This "extra" piece of Sugar Creek, in the French Creek Valley, is a bit of trouting overlooked by most anglers.

Moving upstream, we cast to the deep hole under the railroad bridge. Last year a big palomino tempted anglers for some time by appearing near the surface and then sinking into the green depths. Above the hole is a long riffly run with pockets, where you have to search the clear water for trout lies in the rock and gravel bottom. This extends several hundred yards to the big hole along Route 322.

This large pool isn't stocked because of traffic, but it has fish. They swim in from stocking points at the bridges above and below. Little Lick Run enters at the hole and adds its cold temperatures. To fish the Route 322 hole, we pull off above it in the parking area for the roadside spring, and walk down.

Above the big hole are several more deep pools and interesting runs. Then there is a stretch of flat water that brings us up to the next road bridge. This road is the second turn-off (going north on Route 322) to Sugarcreek (the village). There's a good hole and riffle at the bridge, with glides and runs upstream. Throughout this lower section Sugar Creek is big enough for easy fly rod work, with either brush or tree-lined edges.

Warden Run

About a mile up from the bridge, Warden Run empties into Sugar Creek. We can either fish our way up to it, or travel by car north on Route 322 and take the next left, McCleary Road. Warden Run is Sugar's first fishable tributary, currently open for angling near the mouth, but with its headwaters posted against trespassing.

Bob Petri, editor of Trout Unlimited's *Pennsylvania Trout* newsletter, is an avid fisherman of Sugar's tributaries. Petri says, "Warden is mostly runs and pocket water, but it has a section with relatively good gradient, plunging three or four feet. It has some serious brown trout in it." Venango County WCO Bob Steiner agrees. "Warden Run is a superb brown trout producer, with limited road access. It dumps a lot of cold water into Sugar Creek, a plus for trout in hot weather," he says.

Upstream from Warden Run, anglers can access Sugar Creek at several walk-in stocking points along McCleary Road. Watch for the "Fishing Permitted, Walk In Only" or "Litterbug Law" signs here and elsewhere to indicate parking, access and stocking points. The creek section along McCleary has deep pools, up to six feet deep, more rocks, riffles and overhanging limbs.

Fishing upstream, the next landmark we reach is the hole under the high bridge on Route 322. Sugar Creek turns away from Route 322 here and parallels Route 427, going north toward Cooperstown. Foster Run enters above the high bridge, a "too small to fish" tributary, according to WCO Steiner, but which adds cold spring water to the big stream.

Where Foster Run enters, there's a hole with interesting cross currents. Then we fish up to a recent stream bank stabilization project. PennDOT has lined the bank with large limestone and jutting rock deflectors. The creek has dug holding water here that is well worth casting to. Rounding the stream bend, we find ourselves at the "Crystal Beach Hole," a deep pool that is the end of a long, slow stretch that begins at the next bridge up.

Beatty Run

Just above this next bridge on Route 427, Beatty Run enters Sugar Creek. This is a small, unstocked native brown and brook trout stream. The lower reaches are brushy but fishable. Beatty continues through a golf course (no fishing here), up the valley past farms, backyards and woods, toward the blowdown of the tornado of 1985. Beatty is narrow but retains its "fish-ability," according to WCO Steiner, up to the beaver dams. He has checked a number of successful small-stream trout fanatics on Beatty Run. Angler Petri, among others, has taken fish nearing 20 inches, although whether they are streambred or whether they moved up from Sugar Creek is unknown.

From where Beatty Run enters, Sugar Creek parallels Route 427 closely past the golf course, along which it is stocked, then turns away. To reach the back corner, we have to take Sleepy Hollow Road, which turns right off Route 427 before the last bridge. It's worth taking because there's a big pool where the road touches the stream, with hemlock and a large, midstream fish-hiding rock. The pool "always runs an inch over your waders," says WCO Steiner, and is a stocking point. Above the pool, Sugar flows around some islands, and gains the flow of Wolf Run, another small, native stream.

Above that we fish around some more stream improvement/bank stabilization devices, a series of rock jetties built by the Fish and Boat Commission, the Oil Creek Chapter of Trout Unlimited, and Jackson Township. The stream has cut good runs between these and gouged deep pockets off the ends. From there, Sugar passes again under Route 427. To fish the devices or the bridge pool, we drive across the bridge and pull into a parking area on the right.

We can also fish upstream, above the bridge, through glides and pocket water in a wooded setting. At the gas pipeline, which looks like a grassy trail, we find more interesting water. Then we're up to the best hole in the creek. This is "Shearer's Hole,"

so named because it was owned by Clarence Shearer, the Venango County "fish warden" for many years. Shearer's Hole is extremely deep, virtually unswimable, and constantly changing with high water conditions.

Upstream, Sugar filters through islands to the ball field at Cooperstown. Although this isn't the Hall of Fame town, it does have a little league field and once produced major league ball bats. You're welcome to park and fish at the field. From here up through the village is the most popular fishing spot on the creek, and it is well-provided with trout.

Lake Creek flows into Sugar along the ball field. This waterway, says WCO Steiner, is "a sleeper of a trout fishery." Lake Creek originates in warmwater Sugar Lake, but in the spring, stockies from Sugar move upstream and natives from Lake Creek's tributaries move down.

Sugar Creek crosses under Route 427 again in Cooperstown. We can park along the road edge just below the bridge and fish up or downstream. Above is Christmas Island, whose lighted holiday display graced the cover of the December 1986 *Angler*.

East Branch

Above the Christmas Island fast water is a long pool. Around the bend, the East Branch of Sugar Creek flows into the main stem. The two streams are nearly the same size. At this point we'll leave, for a time, the main stem of Sugar, and follow up the East Branch and its tributaries and see what they have to offer an angler.

The lower portion of the East Branch is posted, but we can access the open section by continuing north of Cooperstown on Route 427 and turning right on Davis Road. Trout are stocked from Boal's Bridge upstream through State Game Lands 96. The East Branch is a meandering stream, much of it in a wooded setting, with nice, placid pools. The tornado crossed the creek near Fetterman's bridge, and here the water runs through tangled brush and fallen logs.

Above Creek Road, the East Branch is like a mountain trout stream. The piece that runs toward Route 428, the top stocking point, says WCO Steiner, "would compete with any northcentral Pennsylvania small trout water for aesthetics." Plus, according to AFM Lee, the stream "holds over some nice browns."

Little Sugar Creek

Along Davis Road, near "Pap's Camp," Little Sugar Creek splits off the East Branch and heads north. Flowing through a wooded setting, Little Sugar has living room-sized

pools and is stocked. It gives up occasional holdover trout and also boasts a good number of wild browns. The stream nearly qualified as a Class A Wild Trout Water when it was resurveyed in 1990, according to AFM Lee.

Little Sugar passes under Route 428 and runs along this road up to Wallaceville. Then it ducks into the forests of State Game Land 96. WCO Steiner says the game land section is underfished, as well as the walk-in water above Acel Road. The top stocking point is Route 27. Angler Petri advises Little Sugar fishermen that they "may have to walk a lot. Little Sugar has a tendency to run shallow a long way and then make holes, but it's a very pretty creek."

Just before Little Sugar runs under Route 428, another stocked trout stream, Prather Creek, splits off from it. Prather is the first stream anglers cross traveling north from Dempseytown on Route 428. Little Sugar is the second. Most of Prather runs away from the road and is not easy to access. The top stocking point can be reached on Buxton Road (turn east at Wallaceville). Locally, Prather has a reputation for producing big browns, as well as native trout, says WCO Steiner. It's also known for quicksand. "I haven't found any yet," Steiner advises, "but take along a wading staff in case I'm wrong."

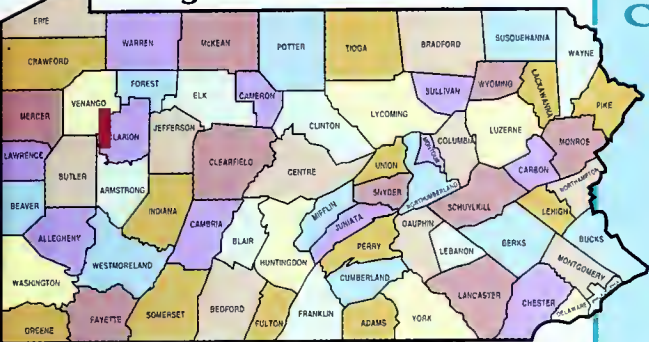
Having exhausted the East Branch-Little Sugar-Prather Creek offshoot, we find ourselves back at the main branch of Sugar. Above the mouth of the East Branch complex is the Mitchell Farm, which is not stocked. Although private, anglers may wish to ask the farmer about fishing permission. This farm took part in an erosion prevention project and fenced its dairy herd from the stream.

Sugar can be accessed above the farm by turning right off Route 427. Fish the section from the bridge, behind the Jackson Township building, up to the posters. The next mile is no trespassing and is strictly enforced up to the Wright Road bridge.

From Wright Road up to Bradletown, Sugar is float-stocked by sportsmen and the Oil Creek TU Chapter. Route 427 and White Road parallel it, but at a distance. Anglers should park near the bridges above and below and fish through. The section can be difficult, brushy fishing, but it has good holes and riffles, alders, undercut banks and occasional beaver dams.

At Bradletown, Sugar is stocked where it passes under Route 427, but it is posted again from behind the church up to Williams Road by the Pennsylvania Landowners Association. It's open to fishing again from the Williams Road bridge up to the county line. Just below the county line, the West

Sugar Creek Watershed Venango and Crawford Counties



Branch of Sugar Creek enters. This normally harbors native trout, although it went dry in last summer's drought.

Up in Crawford County, Sugar runs through one posted property below Route 27. Bill Mantzell, WCO for eastern Crawford County, begins his stocking above the Route 27 bridge. From there the main branch follows the Fauncetown Road. The top stocking point is TR 549 (Terrill Road). Sugar is thick and brushy here, says Mantzell, but the Game Land 69 section has good native trout fishing. In Crawford County, the stream "has a slow flow with pockets and runs, picking up more gradient as you go down. Trout hide along the edges, so you need a short rod and lots of patience."

Along the Fauncetown Road north of Route 27, the first right turn is Crowther Road. The East Branch of Sugar Creek (a different stream from the East Branch in Venango County) splits off the main creek here. The East Branch (Crawford County) is no longer stocked with trout, because it has been reclassified a Class A Wild Trout Stream.

AFM Lee says the stream "showed improvement since our last survey, and the results were pretty impressive. The East Branch (Crawford County) went to 40 pounds/acre of trout, mostly wild browns." WCO Mantzell says fishing it, especially around Troy Center, is "a nightmare." Another angler calls it "fishing in the sticks." It's more fishable in its lower reaches, but even Petri agrees that with its brush and alders, the East Branch is "a tight piece of work, but has a lot of fine natives."

Grannom hatch

The watershed is better caddis than mayfly fishing for the fly angler, Petri says, although he's done very well on the early blue quill. The Grannom caddis hatch, he agrees, is the stream's best feature. "This is the most prolific caddis hatch I've seen in Pennsylvania, outside of Fishing Creek at Lamar. It's an event of nature everyone should see."

The Grannom hatch begins around April 20 in the lower reaches of the stream and

moves up the creek quickly toward the headwaters. "Every piece of water in that drainage is loaded with those things," says Petri.

Although the mayfly hatches are sparser, sport can be had on such patterns as the blue quill, march brown, sulphur, blue-wing olive, slate drake and tricos. Most standard spin and bait fishing techniques work on Sugar Creek, too.

Both the Fish and Boat Commission and the Oil Creek Chapter of TU plant trout. The Commission stocks browns and rainbows in the main branch's 17.5 stockable miles, making up to 25 stops in Venango County and 10 in Crawford. Sugar Creek receives a preseason and two inseason stockings from the mouth to Cooperstown, and a pre-season and one inseason above.

The East Branch (Venango County) receives rainbows and browns in a preseason and one inseason stocking, spread out in 12 stops over its 6.5 miles. Little Sugar gets the same, on 14 stops over five miles. Prather receives brooks and browns on three stops for its three miles of stockable water.

Not everyone we know is a sparkling celebrity, yet our very average friends are good, and kind to us, and well worth the acquaintance. So it is with streams, and with Sugar Creek in particular. Try it.

Local Services

Camping *(seasonal, call for opening dates)*

Two Mile Run County Park
(814-676-6116).

Oil Creek Campground/Resort
(814-827-1023).

Motels

The Inn at Franklin (814-437-3031).
Cross Creek Resort (814-827-9611).

Bed and breakfast

Quo Vadis House
(Franklin - 814-432-4208).
McMullen House
(Titusville - 814-827-1592).

Meals

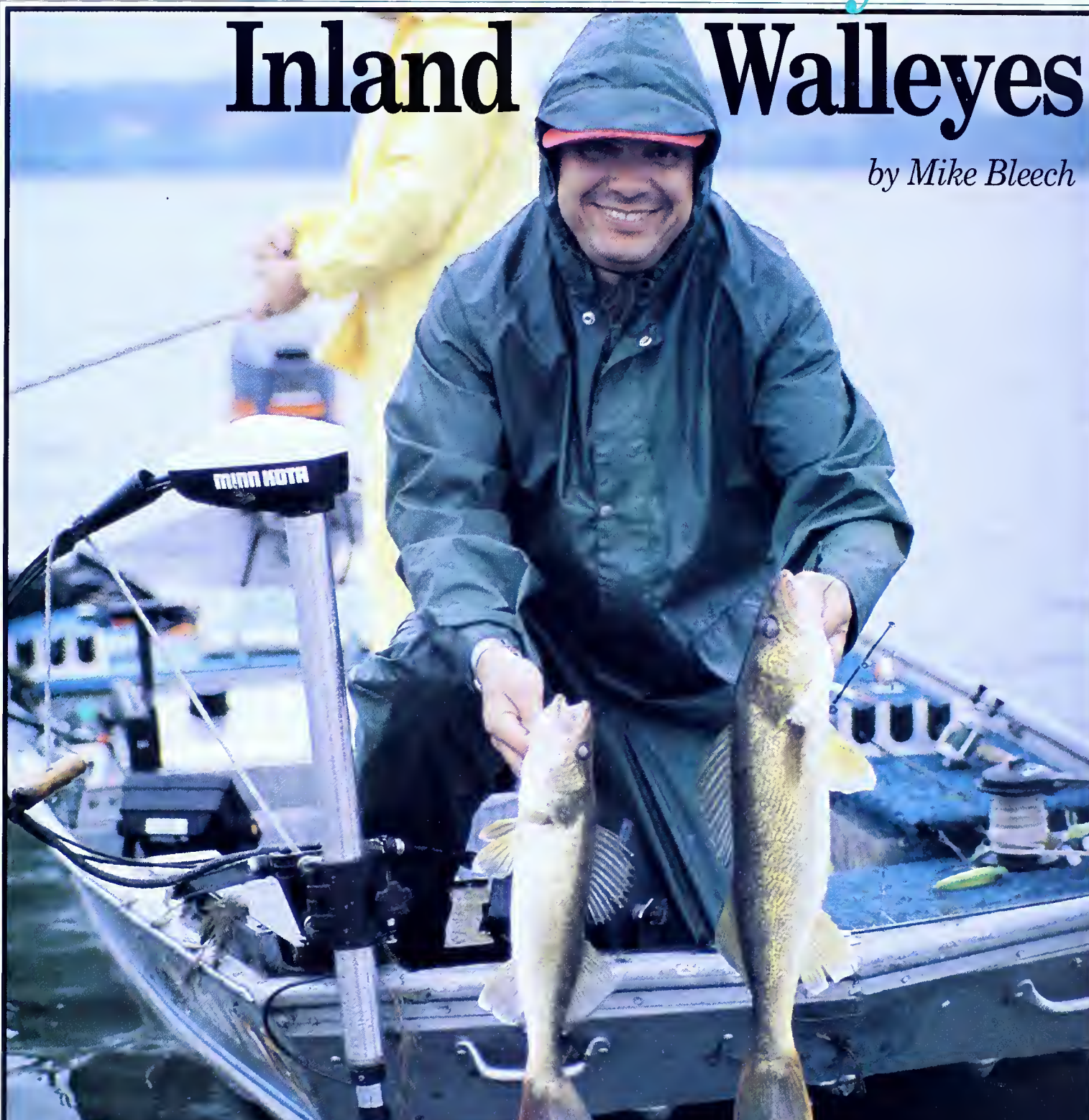
Jim's Super Market (Cooperstown).
The Depot (Franklin).

Fishing supplies

Oil Creek Outfitters
(Oil Creek State Park).
Venango Rod & Gun (Franklin).

Northwest Pennsylvania Inland Walleyes

by Mike Bleech

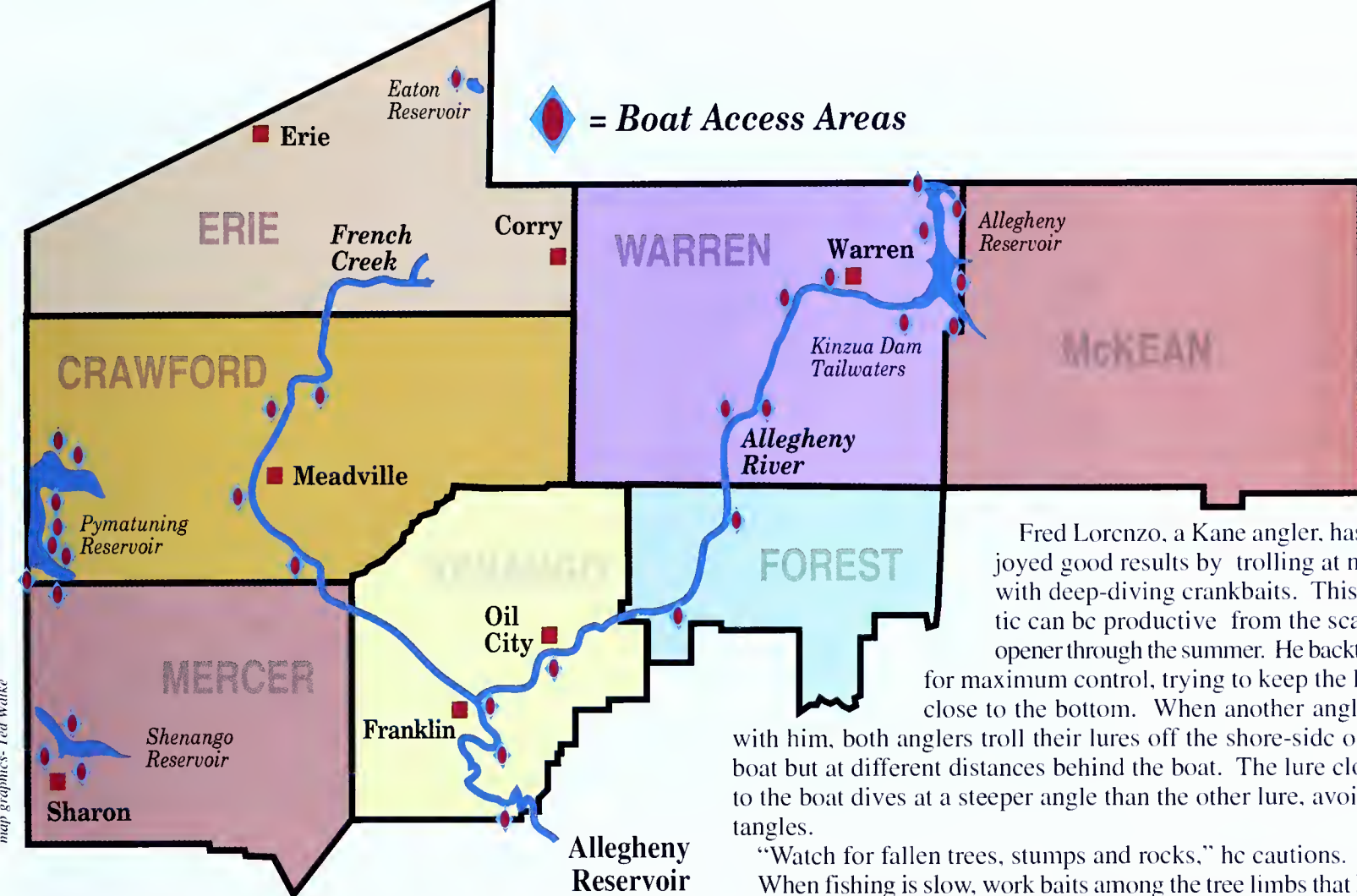


No other part of Pennsylvania, for that matter, few other places in the country, have as much good walleye fishing as our northwest counties, even if you disregard the best walleye lake on the continent—Lake Erie. Here is a look at some of the best, and how to tackle them when the walleye season opens this month.

Spring is a good time for walleye fishing. All things considered, it's perhaps the best time to plan a walleye fishing excursion. The weather is usually

hospitable at this time in northwest Pennsylvania, with temperatures commonly ranging from the high 30s to the 70s. Bring your rain gear. Unless we have an unfortunate repeat of last year's drought, you can expect an occasional shower.

Mike Bleech



Fred Lorenzo, a Kane angler, has enjoyed good results by trolling at night with deep-diving crankbaits. This tactic can be productive from the season opener through the summer. He backrolls for maximum control, trying to keep the lures close to the bottom. When another angler is with him, both anglers troll their lures off the shore-side of the boat but at different distances behind the boat. The lure closest to the boat dives at a steeper angle than the other lure, avoiding tangles.

"Watch for fallen trees, stumps and rocks," he cautions.

When fishing is slow, work baits among the tree limbs that have fallen into the lake. You might be frustrated by losing a few rigs to snags, but this method seldom fails.

Pymatuning Reservoir

A large portion of the walleyes in Pennsylvania can trace their ancestry to Pymatuning Reservoir, one of the premier walleye waters in the country. This 14,500-acre lake, which straddles the Ohio border, continues to produce an impressive number of walleyes, although they tend to be a bit on the small side.

Though comparable to the Allegheny Reservoir's size, Pymatuning is very different. It is relatively shallow, with a maximum depth of about 35 feet. Bottom slopes are gentle, except for short, steep breaks along sunken creek channels. The water is usually greenish brown.

Pymatuning fishing regulations allow year-round walleye fishing. Also note the 10hp limit. The spring fishing peak gets under way in late March, depending on the weather, and continues through April.

"Those walleyes are shallow then where they're easy to get to," says Worth Hammond, a northwest Pennsylvania angler who has enjoyed much success at Pymatuning. "Work the humps and bars."

Hammond likes to fish in the southern part of the lake, usu-

My friend Bill Jeffers once gave me some good advice about the Allegheny Reservoir. Use live minnows until the first warm spring rains, and then switch to nightcrawlers. If you need a reason, he said, that's when nightcrawlers naturally get washed into the reservoir. But he also said, logical as that might sound, it is probably a bunch of hogwash. The only important point about this strategy is that it works.

The Allegheny Reservoir is big. About two-thirds of its 12,000 surface acres are in Pennsylvania. It is also deep, nearly 60 feet in the old river channel at the New York border, and 135 feet below the trash boom that marks the lower limit for boaters.

Walleyes are plentiful, but the walleye fishing is usually difficult, as is often the case in deep, steep-sided impoundments. Some anglers have outstanding success here, though, like Jack Bell, of Kane, for one.

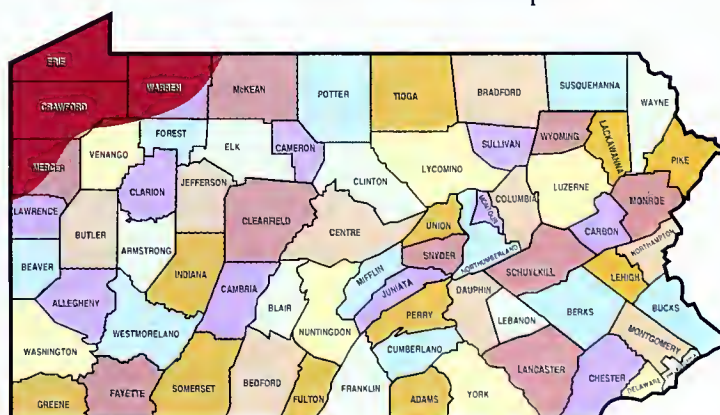
"This time of year you have to fish the creeks," Bell says, referring to the bays of the main tributaries.

Bell suggests casting minnow-shaped lures such as Rapalas near the creek mouths. However, during the first few weeks of the season most of the catch will be smaller walleyes, primarily males. Walleyes spawn just before the start of walleye season, and it seems to take the larger females a while to recuperate.

Walleye fishing improves at the Allegheny Reservoir about mid-June, when the larger walleyes move against the banks to feed.

"The better fish always come into shallower water," Bell says. In Kinzua terms, that is water less than 30 feet deep. "I look for small pea gravel. Bait relates to that type of area. The pea gravel is generally little rises that come off the banks, probably caused by run-off. There might be three or four of them together," Bell says.

Live baits and jigs are easiest to use when the walleye action is in the main arm, along the steep banks, because they are relatively easy to keep on the bottom. Emerald shiners and nightcrawlers are the favorite baits. Chartreuse and white are the most popular jig colors.



Darl Black shows off a nice walleye. Spring is the best time for walleye fishing. The weather is usually reasonable, but bring your rain gear to northwest Pennsylvania. You can expect an occasional shower unless we experience a drought like last year.



Mike Blech

ally putting his boat in the lake at the Snodgrass boat launch. A key to locating the better shallow structure is rocks and gravel. These areas can be fished either from boats or by wading. Slender shallow-diving lures such as the Rapala Minnow or Thunderstick are effective.

By the time walleye season opens in the rest of the state, the peak spring walleye fishing is over, advises Darl Black, *Pennsylvania Angler* contributor and one of the top outdoor writers in the country, who makes his home in Cochranton. This certainly does not mean the action is over, though, for Pymatuning walleye anglers. You just will have to fish a bit harder for them.

In May and June, look for walleyes on the flats, in 15 to 20 feet of water. Fishing methods should be geared toward covering a lot of water. Trolling with the popular Hot 'N Tot is characteristic. Many anglers remove the front treble hook on this lure to avoid snagging on the numerous submerged stumps. Nightcrawler harnesses are also effective. Troll them with just enough lead to bounce on the bottom from time to time.

Some anglers prefer to drift with 'crawler harnesses, or cast with lead-head jigs tipped by nightcrawlers. Worth Hammond is partial to a lime-green Mister Twister jig, tipped with a fathead minnow during spring, then with a nightcrawler during summer.

"Lime-green, for some reason, works better in that colored water," Hammond says. "It has to be a visibility thing."

No other part of Pennsylvania and few other places in the country have as much good walleye fishing as Pennsylvania's northwest counties.

Eaton Reservoir

"I don't know what it is about that lake, but I've caught walleyes every time I've been there," says John Lucas, a former "King of Pennsylvania Anglers" who makes his home near Warren.

Eaton Reservoir is a small lake, just 246 acres, in the north-eastern corner of Erie County. Though it can't compete with larger waters for numbers of walleyes, it is a pleasant lake, quiet because it is limited to electronic motors, and it has earned a reputation for trophy-sized fish.



Mike Blech

Lucas works small points near the dam with the deep-diving Shad Rap, chartreuse during spring. During summer, he likes to fish both for walleye and largemouth bass in the deeper parts of the weed beds, using Arkie jigs tipped with pork.

Allegheny River

The Allegheny River of northwest Pennsylvania, the middle Allegheny, is a series of riffles and pools between the Kinzua Dam and the head of the upper navigation pool. Walleye fishing here varies from difficult to excellent. One year a pool is hot. The next year it is cold. But always there is good walleye fishing somewhere.

As walleye season opens, the river walleye have just completed their spawning ritual. Look for them at the bottom end of riffles. They feed along the edges of the swift current.

After sunset walleyes move into shallow water. Many dedicated river anglers do all their walleye fishing at night. Daytime fishing is generally best in the larger, deeper pools, such as the dredge pools.

Most of the regular walleye anglers along the river use live bait, either minnows or nightcrawlers. The standard rig is a fine-wire hook and a splitshot. Hook baits lightly to keep them alive.

"All I ever use is minnows," says Herb Wagner. "Work them slowly on the bottom. If you don't get a snag once in a while, you're not going to catch walleyes."

Wagner is a five-time winner of the Pennsylvania State Championship Fishing Tournament, headquartered each fall at Tidioute. Wagner's winning catches have come from the river, where his expertise is legendary.

Wagner suggests using just enough weight to keep the bait bouncing along the bottom. A splitshot is generally enough. The exception is when he still-fishes. Then he uses a sliding egg sinker, held a few feet from the bait by a swivel. He leaves the reel bail open so a walleye can run with the bait without feeling resistance.

Walleye fishing in the river is typically very good from the season opener through mid-June, while the fish are congregated near the heads of the pools. Another fishing peak occurs during the late fall, when anglers catch many of the biggest walleyes.

Kinzua Dam tailwaters

The Kinzua Dam tailwaters are part of the Allegheny River, but because the area is so unique within this region, it should be treated separately. Fishing pressure is heavier here than elsewhere on the middle Allegheny, and this is probably the most productive 3/4-mile stretch on the entire river from an angler's viewpoint.

The dam stops upriver movement of all fish, which congregates walleyes during spring and fall when they make generally upriver movements. They find the habitat here rich in food and oxygen, so many stay year-round to feed on emerald shiners and other small fish that are swept through the gates of the dam.

"You can't beat a strung minnow for bait," suggests John Lucas.

Stringing minnows has long been a popular method among tailwater regulars. As the strung minnow is retrieved, it spins, appearing as a minnow that has been stunned from a trip through the dam gates.

The terminal rig consists of a treble hook, often a split-ring type, a barrel swivel and an egg sinker. Tie a small loop at the end of the line. About two feet from the loop, tie a swivel into the line, after sliding the egg sinker onto the line above the swivel.

The minnow is usually an emerald shiner or a spottail shiner, both of which are native to the watershed, and both of which are

also sold at area bait shops. Anglers use a special baiting needle to thread the fishing line into the minnow's mouth and out its vent. They attach a treble hook to the small loop at the end of the line. Then they pull the line tightly, inserting one point of the treble hook into the rear of the minnow.

"The biggest edge an angler can have for walleyes in the tailwaters is a long rod," Lucas says.

The long rod serves two main purposes. First, it makes long casts possible, which is a huge advantage because boats are not allowed in much of this area. Second, when held high it keeps line off the water. This prevents bows in the line, which reduces sensitivity and makes hook-setting difficult.

Carl Zimmer, one of the most skillful walleye anglers in this part of the state, stresses life-like appearance when he uses artificial lures in the tailwaters. Marabou jigs are one example.

"Marabou has its own unique action," Zimmer says. "You look at it in the water and it looks so life-like."

Jigs are the most popular artificials at the snag-infested tailwaters. Other favorites include white bucktails, and white, yellow or chartreuse screw-tail plastic bodies.

French Creek

"I'd float it with a canoe and pitch Rapala-type lures," advises Worth Hammond.

French Creek flows out of rolling, glaciated land along the border between northern Erie County and New York. Then it swings into the Allegheny Highlands before emptying into the Allegheny River at Franklin. For the most part it is a series of pools and riffles with some extended, shallow pools. Its bottom varies from gravel to clay and silt. The better walleye fishing is generally in the lower half of the creek, though you might find scattered schools just about anywhere.

Hammond likes to float a stretch from the first bridge upstream from Meadville down into Meadville, or begin farther upstream at Saegertown. Darl Black prefers the stretch from Carlton to Utica. You have to float to reach much good water, Black points out. Good walleye holes are scattered.

The peak of French Creek walleye fishing occurs during fall and winter, when anglers catch some exceptionally large walleyes, including at least several 15-pounders. Night is the time to fish for walleyes in French Creek, any time of the year.



Northwest Area Bait and Tackle Shops

Holmes Sporting Goods, 5 Pennsylvania Avenue East, Warren, PA 16365. Phone: (814) 723-8810.

The Lil' Bit, Route 285, Box 95, Espyville, PA 16424. Phone: (412) 927-6977.

Spillway Sports Shop, South Mercer Street Extension, Linesville, PA 16424. Phone: (814) 683-4312.

Allegheny Outdoors, Fraley Street, Kane, PA 16735. Phone: (814) 837-7261.

Venango Rod & Gun Shop, 1218 15th Street, Franklin, PA 16323. Phone: (814) 437-2666.

Elly's Bait & Tackle, R.D. 2, Saegertown, PA 16433. Phone: (814) 398-2468.—MB.

Simmons Appointed to NBSAC

John Simmons, director of the Commission Bureau of Boating, was recently appointed to the National Boating Safety Advisory Council (NBSAC) for a one-year term.

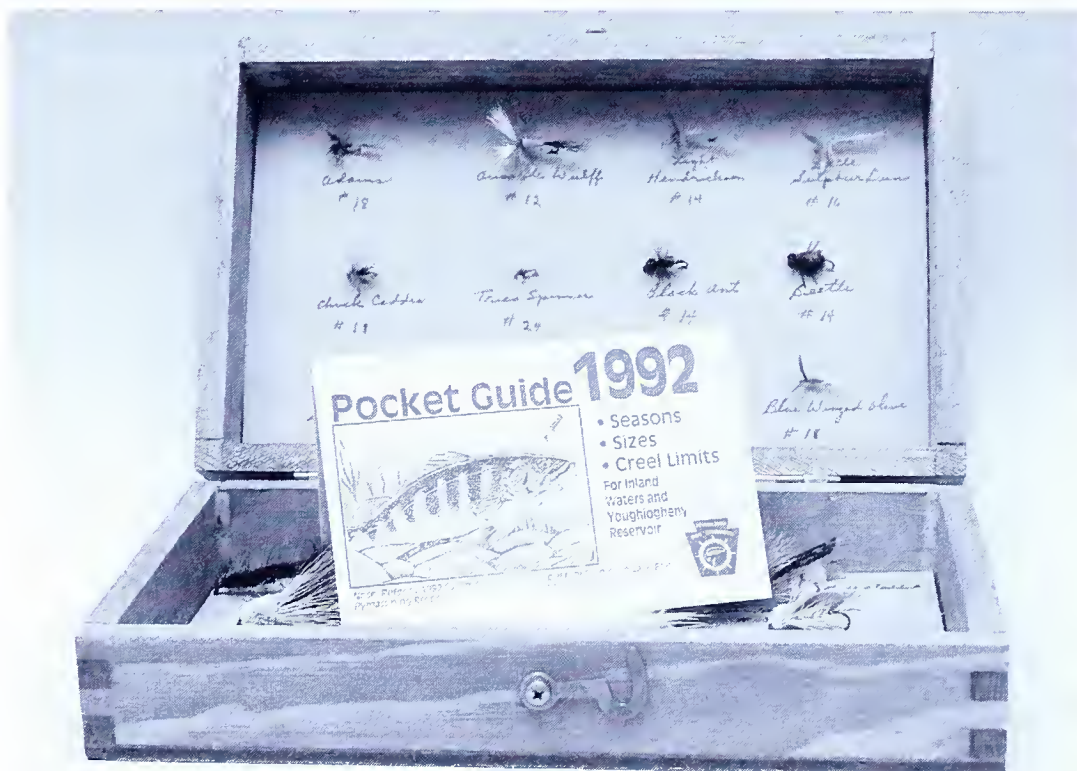
The council is sponsored by the Coast Guard and consists of 21 members who meet periodically to provide advice to the Department of Transportation on recreational boating safety issues. The National Boating Safety Advisory Council was established by Congress in the Federal Boat Safety Act of 1971. It comprises members drawn equally from the boating industry, state boating safety administrators and the boating public. Appointed by the secretary of transportation, the members review proposed regulations and standards and advise the commandant of the Coast Guard in boating safety matters.



Art Michaels



Fran Partch (center), of Johnstown, PA, landed this brown trout in one hour and 40 minutes on opening day, May 17, 1946, at Fisherman's Paradise, Bellefonte. Partch used a size 18 nymph to catch the trout, a 30 1/2-inch-long, 17-pound, two-ounce monster.



Art Michaels

The 1992 Pocket Guide is a concise reference card you can carry in your fishing vest, in your tackle box or aboard your boat. It includes size limits, creel limits and seasons for fishing Commonwealth inland waters and Youghiogheny Reservoir. Request a free copy from: Publications Section, Dept. F, PA Fish & Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673. With requests please include a self-addressed, stamped envelope.

Beginner's Luck



Nine-year-old Bobby Joyce, of Philadelphia, earned a Fish Commission Junior Angler's Award for catching his first trout—a three-pound, 29 1/2-inch rainbow. Bobby caught it in Pennypack Creek in Philadelphia County. Way 'ta go, Bobby!

1991 Boating Accidents

There were 110 recreational boating accidents in Pennsylvania reported to the Commission in 1991. That's 10 fewer than in 1990. This decrease is not significant. Only a small percentage of the property damage and injury-related accidents is actually reported in any year. There were 93 injuries reported last year. Property damage for all reported accidents totaled \$228,298.

The year 1991 will be remembered by boaters as a year of drought, high temperatures and low water. Recreational boating fatalities declined in Pennsylvania in 1991. Fourteen accidents resulted in 16 fatalities, 11 fewer than in 1990. Low water was a probable factor in this decrease.

Capsizing and falls overboard were again the leading types of fatal accidents. There were no fatalities from collisions. Rivers continue to be our most dangerous waters, accounting for all but two fatalities. Motorboat accidents in small, open craft accounted for nine deaths, and seven of the victims died while boating in unpowered craft. If personal flotation devices (PFDs) had been worn, most of the victims would probably have survived. Hypothermia was a contributing factor in eight of the fatalities; alcohol in 10.

The boating accident record of 1991 is typical for Pennsylvania. Basically, it was an average year. A close examination of the fatal accidents indicates that they are usually preventable. Boaters need to be better informed.

Pennsylvania Fish & Boat Commission 1991 Fatal Recreational Boating Accident Report

	accidents	fatalities
LOCATION:		
Rivers	12	14
Lakes	2	2
Ponds	0	0
Lake Erie	0	0

TYPE OF BOAT:		
Open Motorboat	7	9
Rowboat	1	1
Sailboat	0	0
Canoe	5	5
Inflatable (raft)	1	1
Kayak	0	0

TYPE OF ACCIDENT:		
Fall overboard	3	4
Capsizing	7	7
Flooding	2	3
Other	2	2

PERSONAL FLOTATION DEVICES:		
None aboard	2	2
Aboard but not worn	8	10

Worn	2	2
N/A or unknown	2	2

AGE OF VICTIMS:

Less than 18	3
18 to 29	2
30 to 50	9
Over 50	2
Average age	36

HYPOTHERMIA: 6 8
(possible factor)

ALCOHOL: 810
(any proven use regardless of blood alcohol content)

FATAL ACCIDENTS-FATALITIES BY MONTH OF YEAR:

Jan 0-0	Feb 0-0	Mar 2-3
Apr 2-2	May 2-3	Jun 0-0
Jul 2-2	Aug 3-3	Sep 2-2
Oct 0-0	Nov 0-0	Dec 1-1



Nick Paiano, of Allison Park, caught this 16-pound, 11-ounce tiger musky in the Pittsburgh Pool of the Allegheny River last August. The fish measured just under 38 inches long.



Ten-year-old Brad Drey holds a 7.1-pound largemouth bass he caught last June. The fish was just under 23 inches long. Nice one, Brad!



Martin E. Scherden shows the 14-pound, 4-ounce walleye he caught last October at Canoe Lake, Blair County. The fish measured 32 inches long.

Meet the Authors

The first Pennsylvania Outdoors Writer's Association (POWA) "Meet the Authors" and book signing is scheduled for Sunday, May 17, 1992, at 2 pm at the Arena Res-

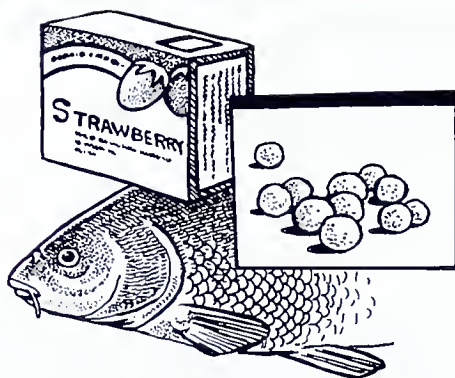


taurant, Business Route 220 North, in Bedford. The opportunity lets Pennsylvania anglers meet and talk with Pennsylvania book authors, have books autographed and possibly purchase books. The event occurs in conjunction with POWA's annual spring conference. Participating Pennsylvania outdoor authors include Marcia Bonta, Bob Clark, Don Lewis, Scott Shalaway, Scott Weidensaul and Tom Fegely. There is no admission charge. For more details, contact Tim Flanigan at (814) 623-7865.



Dedicated to the sound conservation of our aquatic resources, the protection and management of the state's diversified fisheries, and the ideals of safe boating and optimum boating opportunities.

Angler's Notebook *by Joe Reynolds*



Spring is a prime time for carp fishing. Catch more carp by adding some strawberry gelatin to your favorite doughball recipe.

Remember to keep an extra set of spark plugs and a plug wrench on board your boat, especially when fishing on larger lakes and reservoirs.

Monofilament fishing lines tend to test substantially stronger than the pound-test indicated on spools by manufacturers. Six-pound test, for example, is likely to break at eight pounds or higher. Those seeking record fish should use "rated" line—it's guaranteed to break at or below the pound-test indicated on the spool.

Outboards in the six-horsepower range are usually the best bet for powering john boats in shallow, rocky rivers. In shallow water you need a prop guard.

Modern fly lines don't require "dressing" with floatant, but many experts still clean and dress fly lines to ensure high floating and easy pick-ups.

Prolong the life of electric motor batteries by recharging immediately after use.

Special "keel" hooks are perfect for streamers and bucktails that are fished at the bottom on sinking lines, or for fishing in thick weeds or lily pads. The "keel" design hook is virtually snag-free because it rides upside-down in the water.

The best all-round fly rod for a beginner is an 8 1/2-foot graphite rod that is rated for a 7-weight fly line.

Fly fishermen will find that shortening leaders makes for easier casting of heavy, wind-resistant flies and popping bugs.

Use amber-colored, polaroid sunglasses for best fish-spotting visibility. The glasses reduce surface glare on both cloudy and sunny days.

Big salmon are more fun to catch if a trolling boat is rigged so that the boat can be stopped after a fish is hooked. Usually this means fishing only one or two lines.

Keep a sharp knife handy when fishing dam tailrace areas. Quickly rising waters can pull a boat's bow underwater if the anchor becomes lodged under a rock.

May probably offers some of the best trout fishing. Opening period crowds are gone, streams still hold plenty of fish, fly hatches are better, and the weather is generally more favorable.

Walleyes spend 90 percent of their lives in deep water when it's available. Choose lures that quickly get down to their deep, rocky habitat.

The average size of river smallmouth bass tends to be the same as the minimum size limit set for anglers. As biologists increase the minimum size limits, anglers find they catch larger bass.

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On the Water

with Dave Wolf

The Limits of Luck

I have often been accused of being a slower learner. You know, one who doesn't learn from his mistakes. Of course, I object to most forms of assassination on my character and I make no exception to this. I do admit to considering these insults from time to time to see if there is any validity in these claims. At times I have found that they may have a point, something I never admit to anyone but myself. I never allow anyone to humble me to the point where I must listen to "I told you so."

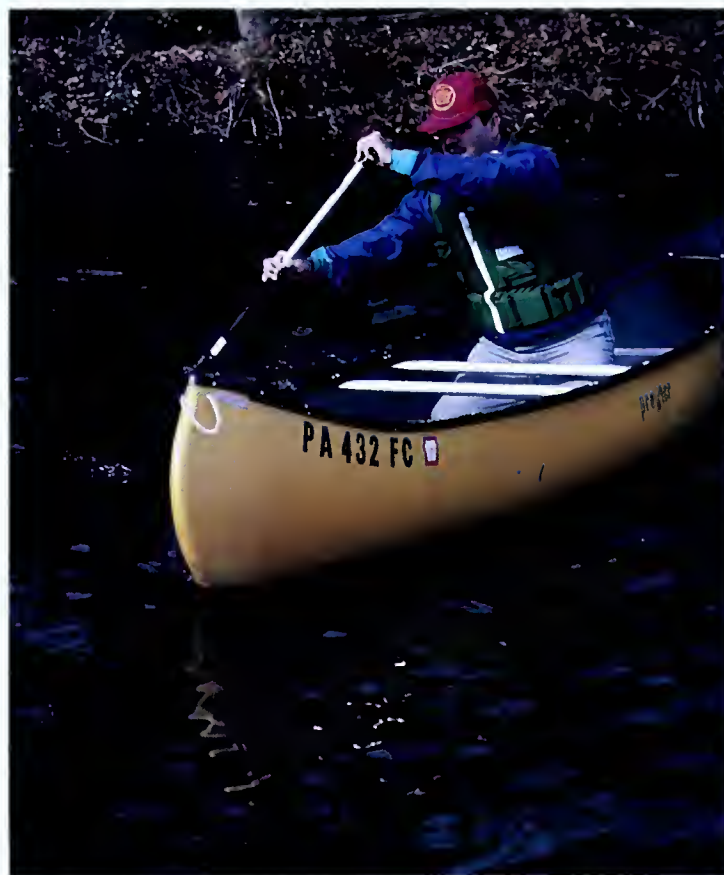
Although boats have been part of my life for many years now, I still find that we have our differences. It seems that I will admit only here, never verbally, that over-confidence breeds neglect and that I have been over-confident far too many times during my boating outings. I suspect that my first problem is lack of money to buy anything above a dented and worn john boat or canoe that has seen better days.

I have enjoyed excursions in my johnboat, which I have often used as a fishing platform. I fish many small impoundments and lakes, so an electric motor worked just fine until the day a thunderstorm rolled down the valley to raise havoc on the impoundment we were fishing. The thunder roared through the heavens and the lightning generated more electricity than most power plants—and the motor would not start.

My friend, a mechanic, said that something had burned up and that was the reason for the failure. Frankly, I didn't care why it didn't work, only that it didn't work. We took shelter against a cliff with large overhanging boulders, and after the storm was over we rowed the mile-and-a-half back to the launch area. Soaked to the bone, we shivered and shook in the cab of my truck until the old thing got good and warm and then we loaded the boat.

On another occasion, while fishing a finger of a large impoundment, no one saw the storm clouds until the first bolt of lightning drew our attention away from the fish. Again, a once-reliable 10-horsepower motor would not start. My brother began to panic when he saw trees blowing over along the shoreline as we paddled madly for shore. In his scurrying about the back of the boat he somehow kicked the overflow plug out and we sank 15 to 20 yards from shore. We swam to shore, boat in tow, and survived one of the fiercest storms I have ever witnessed. Laying on your stomach in an open field with the skies lighting up and seeing hardwoods of 40 feet and better topple like toothpicks is no fun—take my word for it.

And then there was the day I decided to canoe a windblown lake. I was alone and planned to fish for about an hour, so I took only one paddle. The wind was blowing the canoe across the lake like a small kite, and casting while attempting to keep the canoe in position was anything but fun. Still, I persisted to the point that I put the paddle across my lap and began tying on another streamer. Don't ask how, but my one and only paddle slid from my lap and into the choppy waters. The wind separated the paddle and canoe quickly, but with the luck of an ultra-skilled fly caster



I was able to hook the paddle. The aluminum paddle dived deep as I set the hook and then quickly exploded from beneath the surface like a sub-launched missile, and in a moment it was gone. The winds swept me across the lake in five short minutes and with a great deal of luck shoved me into the landing area—across the lake from my vehicle. Miraculously, as I sat and pondered my predicament, the paddle washed ashore not more than three feet from where the canoe landed. Luck—just plain luck.

Over the years I have been in boats of all shapes and sizes, on calm waters and on a real white-knuckler with 10-foot swells on Lake Erie. Once, on the Delaware during the shad run, my guide and I were able to rescue a boater who threw his anchor out of the stern first and then tried desperately to toss one over the bow. Before he could, the boat sank and we just happened to be at the right place at the right time.

I have had some of my most pleasant days on the water, drifting and paddling a canoe, tossing streamers from a john boat drifted within casting distance of a shoreline, and on bright, sunny days trolling the depths of Lake Erie and taking in the splendor the Great Lake affords.

But I have had my pulse quickened and my palms perspiring because of stupid stunts I have pulled. I know becoming over-confident can cause disaster, and I realize that although I have had great pleasure while boating, my lack of forethought and preparation could have added my name to the fatality statistics kept by the Fish and Boat Commission. I realize, too, that luck carries with it limits that are preset and that the whimsical lady may not be nearby the next time I need her.

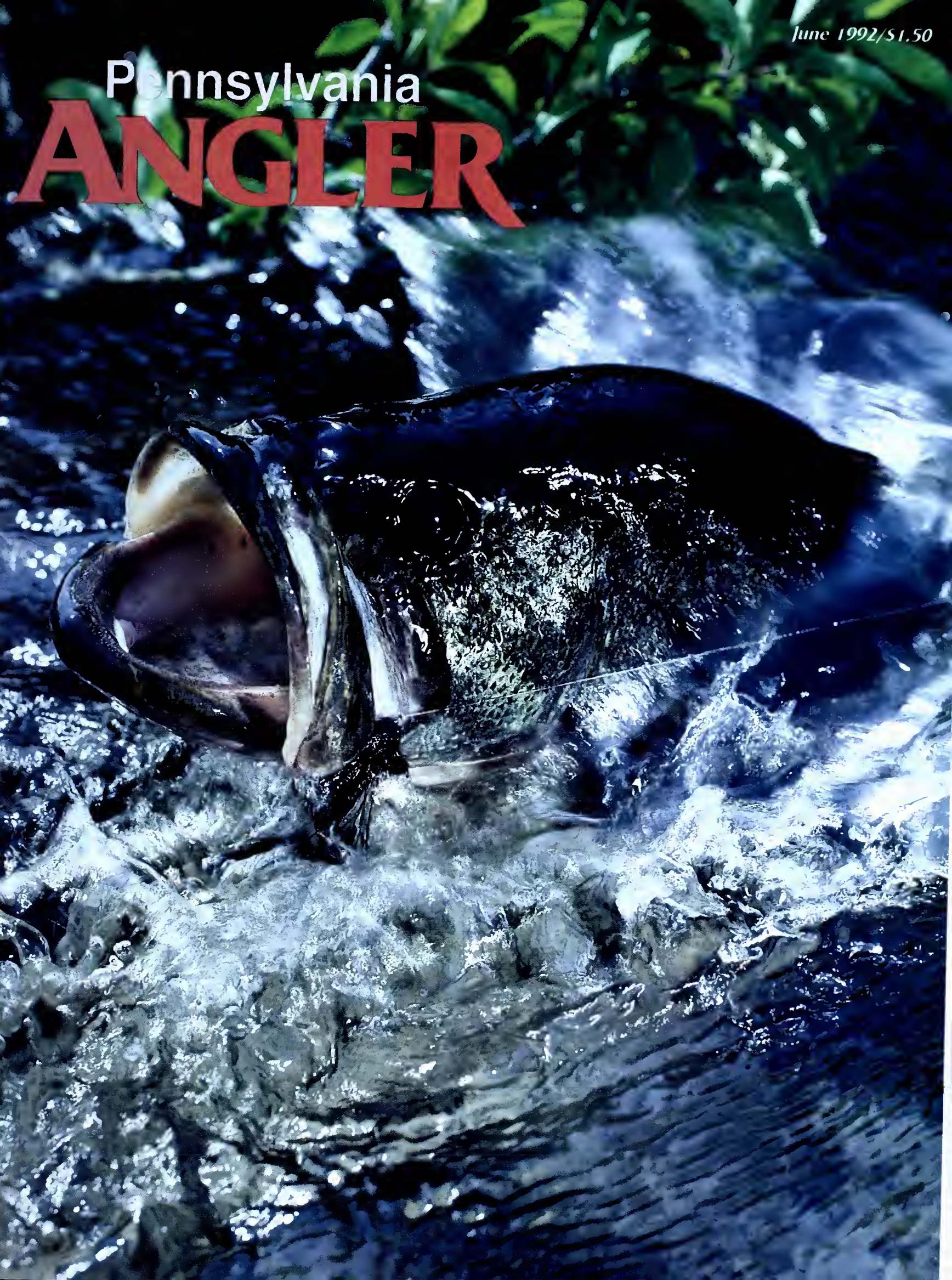


Pennsylvania State Record Fish

SPECIES	CAUGHT BY	WEIGHT	WHERE CAUGHT	YEAR CAUGHT
Bass, Largemouth	Donald Shade; Waynesboro, PA	11 lb. 3 oz.	Birch Run Reservoir, Adams County	1983
Bass, Rock	David L. Weber; Lake City, PA	3 lb. 2 oz.	Elk Creek, Erie County	1971
Bass, Smallmouth	Charles J. Pence; Franklin, PA	7 lb. 10 oz.	Lake Erie, Erie County	1990
Bass, Striped				
Marine	Donald J. Clark; Boothwyn, PA	53 lb. 13 oz.	Delaware River, Delaware County	1989
Landlocked Lake	Robert W. Albright; Jr, Claysburg, PA	45 lb. 9 oz.	Raystown Lake, Huntingdon County	1989
Bass, White	Jerry Swidzinski; Butler, PA	3 lb. 12 oz.	Conneaut Lake, Crawford County	1990
Bluegill	Tom Twincheck; Blairsville, PA	2 lb. 9 oz.	Keystone Lake, Armstrong County	1983
Carp	George Brown; Saitillo, PA	52 lb.	Juniata River, Huntingdon County	1962
Catfish, Bullhead	Eddie Lasorda; Exton, PA	4 lb. 4 oz.	Marsh Creek, Chester County	1983
Catfish, Channel	Austin E. Roth III; Bowmanstown, PA	35 lb. 2.5 oz.	Lehigh Canal, Northampton County	1991
Catfish, Flathead	Seymore Albramovitz; Pittsburgh, PA	43 lb. 9 oz.	Allegheny River, Allegheny County	1985
Crappie	William S. Gorzelic; Bethlehem, PA	4 lb. 1 oz.	Auburn Dam, Schuylkill County	1991
Drum, Freshwater	Gary Wehrle; Erie, PA	15 lb.	Lake Erie, Erie County	1977
Muskellunge	Lewis Walker; Jr., Meadville, PA	54 lb. 3 oz.	Conneaut Lake, Crawford County	1924
Perch, White	Kevin Nelson Strunk; Bangor, PA	1 lb. 7 oz.	Minsi Lake, Northampton County	1991
Perch, Yellow	Anthony A. Karuzie; Avoca, PA	2 lb. 8 oz.	Hunters Lake, Sullivan County	1992
Pickerel, Chain	Frank Streznectcky; Scranton PA	8 lb.	Shohola Falls, Pike County	1937
Pike, Northern	Gerald E. Enderle; Tioga, PA	33 lb. 8 oz.	Allegheny Reservoir, Warren County	1980
Salmon, Chinook	Gregory Lasko; Erie PA	28 lb. 15 oz.	Lake Erie, Erie County	1990
Salmon, Coho	Jack Scheirer; McMurry, PA	15 lb. 5 oz.	Lake Erie, Erie County	1985
Salmon, Pink	To be established			
Sauger	Thomas D. Steiger; Allison Park, PA	3 lb. 15 oz.	Allegheny River, Allegheny County	1987
Shad, Am. White	Anthony Mecca; Peckville, PA	9 lb. 9 oz.	Delaware River, Pike County	1986
Sucker	Daniel Waugaman; Franklin, PA	10 lb. 12 oz.	Allegheny River, Venango County	1983
Trout, Brook	Anthony Taliani; Creighton, PA	6 lb. 5-3/4 oz.	Little Sugar Creek, Crawford County	1984
Trout, Brown	Kevin Coutts; Paupack, PA	17 lb. 3/4 oz.	Lake Wallenpaupack, Pike County	1988
Trout, Lake	Mrs. Arthur Cramer; Carbondale, PA	24 lb.	Crystal Lake, Lackawanna County	1952
Trout, Palomino	R. W. Hafer; Greensburg, PA	11 lb. 10 oz.	Lake Erie, Erie County	1986
Trout, Rainbow	Dennis L. Clouse; Bethlehem, PA	15 lb. 6-1/4 oz.	Jordan Creek, Lehigh County	1986
Trout, Steelhead	George M. Harchar; Munhall, PA	17 lb. 2 oz.	Lake Erie, Erie County	1986
Walleye	Mike Holly; Bradford, PA	17 lb. 9 oz.	Allegheny Reservoir, Warren County	1980

June 1992/\$1.50

Pennsylvania **ANGLER**



Straight Talk

Historic Decision



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

To most Pennsylvania trout fishermen, and to many others, the names *Spring Creek* and *Fisherman's Paradise* are synonymous with quality trout fishing.

The Pennsylvania Fish and Boat Commission has deep roots in the Spring Creek Watershed, and to many employees the watershed is both their workplace and home. Three very important fish culture facilities are located on lands adjacent to Spring Creek. These include the Bellefonte trout production station and the Upper Spring Creek warmwater/coolwater propagation facility, and the combination trout production station and world-renowned fisheries research station at Benner Spring. The Pleasant Gap Fish Culture Station is also located on the headwaters of the Logan Branch of Spring Creek, together with the headquarters of two of the Commission's largest Bureaus: Fisheries, and Property and Facilities Management.

The H. R. Stackhouse School of Fishery Conservation and Watercraft Safety, which serves as the training center for Commission employees and volunteers, is also located adjacent to Spring Creek, together with a firearms training center for conservation officer instruction.

The best known section of Spring Creek is the world-famous Fisherman's Paradise, a specially regulated one-mile length of stream adjacent to the Bellefonte hatchery.

Farther downstream, on lands owned by the Commission, is the Spring Creek Slalom Course, which is heavily used for training and recreation by kayak and canoe enthusiasts. The borough of Bellefonte maintains a trout exhibition area adjacent to the Tallyrand public park where the stream passes through the center of the community, and farther upstream the flowing waters are the center of attraction of the College Township park in Houserville.

Spring Creek and its unique valley has been much abused over the years as human activities and heavy development have taken place on its watershed. It has been resilient, however, and because of the concerns and efforts of many it has been able to survive and maintain much of its high water quality and productive fishery habitat.

Over the years the Commission has continuously sought and encouraged greater public control of Spring Creek, and today the Commonwealth is the largest single property owner on the stream. Just recently the Commission negotiated with the Allegheny Power System for title of Spring Creek and much of its adjacent banks from Bellefonte to Milesburg.

This lengthy stretch is strong evidence of the Commission's long-standing efforts. The area includes Commission lands at the Paradise and the Bellefonte and Upper Spring Creek hatcheries, and Commonwealth lands under the control of the Pennsylvania Department of Justice that are leased to the Commission.

Other public park lands, together with several private property owner agreements and Penn State University lands, give even more public access to Spring Creek's banks.

Recently, the stream was reclassified to High Quality Coldwater Fishery, which helps protect it from further degradation. Meanwhile, efforts currently under way to upgrade sewage treatment at two existing plants, coupled with accelerated efforts by the U. S. Environmental Protection Agency to clean up toxic wastes at the Reutgers-Nease plant, are encouraging factors for the entire watershed.

The Commission's long-standing and very close relationship with Spring Creek prompted the Pennsylvania Fish and Boat Commission on April 13, 1992, to authorize the staff to continue efforts to acquire other important sections of Spring Creek. If successful, these acquisitions will further extend public control of the Spring Creek corridor and guarantee that more of this unique natural resource will be protected and available for public enjoyment.

It is an historic decision that merits everyone's support.

Pennsylvania Fish & Boat Commission

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Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine

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The covers

This month's front cover, photographed by Doug Stamm, suggests the kind of action you can have in June when bass season opens on the 13th. To help you find the best bass spots in northwest Pennsylvania, please turn to page 23, and to get the lowdown on fishing the lower Allegheny for bass, see page 16. Lake Arthur, Butler County, is one of Pennsylvania's very best bass spots, and on page 8 we reveal the secrets to success on this waterway. Turn to page 20 for how-to-do-it information on bass fishing that may surprise you. Walleye anglers will want to check out page 6, and trout fishermen can find useful material on pages 4 and 14. Fly tiers can follow along at their vices on page 12 to tie a productive summertime trout offering. On page 22 you can read the true story of how a marriage survives even though the guy's an avid fisherman. I bet the author's experience on the water beginning on page 31 is just like yours and mine. An installment of the popular column "Notes from the Streams" appears on pages 28 and 29, and you might want to save this issue's back cover for reference and stash it in your fishing vest or tackle box.

Success on Delayed

By June 15, trout season has ended for many Keystone State anglers, but not for those who fish with artificial lures or flies. For them another opening day is at hand because that's when catch-and-release regulations are lifted on waters designated as delayed harvest.

Delayed-harvest waters? If the term doesn't ring a bell, you're not alone. On a bright day early last May, I fished along toward a favorite pool on the "flies-only" stretch of the West Branch Octoraro Creek only to find that someone had beaten me to the spot. A youthful fisherman stood there, intently drifting a nymph through the pool, properly using fly gear according to the rules. Not proper, however, was the splashy ruckus raised not far from the young man's boots, obviously by a stringer of trout.

"Hey, what've you got there?" I inquired.

"That," he replied, "is my catch."

creel limit stays at three nine-inchers daily. The rules are clearly set forth in the summary book and in the placards along regulated stretches.

Stocking rates for regulated sections are generous, 150 fish per acre, with the first plant taking place as early in March as possible and the second around the middle of May. This gives these hatchery-reared transplants plenty of time to settle in to their new surroundings before they are placed in harm's way by the lifting of the no-kill restriction on June 15. Instead of gullible hatchery graduates, the second-season angler deals with fish that have absorbed a bit of stream wisdom and perhaps have felt the sting of a hook once or twice. Every angler who fishes no-kill stretches knows how difficult it is to fool such trout.

Furthermore, all delayed-harvest stretches are subject either to flies-only or artificial-lures-only rules, another factor in the



I then explained that the West Branch in this stretch was delayed-harvest water, under no-kill regulations until mid-June, and that those fish could be quite expensive if a waterways conservation office or deputy happened by.

Clearly flustered, the young man freed his catch and I'm sure he told the truth when he claimed he didn't realize such restrictions applied, despite the fact that large placards setting forth the rules were prominently displayed all along the stream, and those regulations are clearly spelled out in the summary.

Simply stated, delayed-harvest regulations place certain designated waters on a catch-and-release basis from March 1 to June 15. Thereafter, until the end of the next February, the

trout's favor. I don't think many of us would argue that given the tremendous increase in pressure on our streams, the trout need every break they can get.

The addition of new stream sections over the years testifies to the success of the program. At the launch of Operation FUTURE in 1983, there were 19 delayed-harvest stream sections. In 1991 there were 28.

So where are these specially managed waters located? Primarily in streams where Fish and Boat Commission research found that the ideal habitat conditions of spring can quickly disappear if summer's weather turns hot and dry for long periods, resulting in water temperatures too high for trout to survive. Given the choice, limited creeling seems a far

Harvest Waters *by Ed Howey*

better option than losing the fish to natural mortality.

The flip side of this idea is that during moderate summers—average temperatures and adequate rainfall—the habitat may well sustain the population, stocked fish may carry over in significant numbers, and some of us are going to hook some surprisingly large trout in our delayed-harvest waters.

The map showing the locations of delayed-harvest waters illustrates that they are most numerous in the eastern and western thirds of the state, not a surprising outcome because the blue-ribbon waters of the central highlands are much less likely to suffer summer distress. As a result, many delayed-harvest waterways are a boon for anglers who live in the more populous regions and who favor fishing with artificials.

Within a short drive, in most cases close enough to permit enjoyment of that most prized of all fishing times, the evening hours after work, these waters bring trout fishing happiness to thousands of anglers who would otherwise not experience it.

For those looking for a second opening day in their region, delayed-harvest streams that display one or more of the characteristics described below offer the best chances.

- The regulated section lies below a bottom-release dam.

A typical example is the stretch of Tulpehocken Creek below Blue Marsh Dam. With the help of bottom releases from the dam, this shallow stretch maintains reasonable temperatures throughout the summer and is protected from killing freezes during the winter.

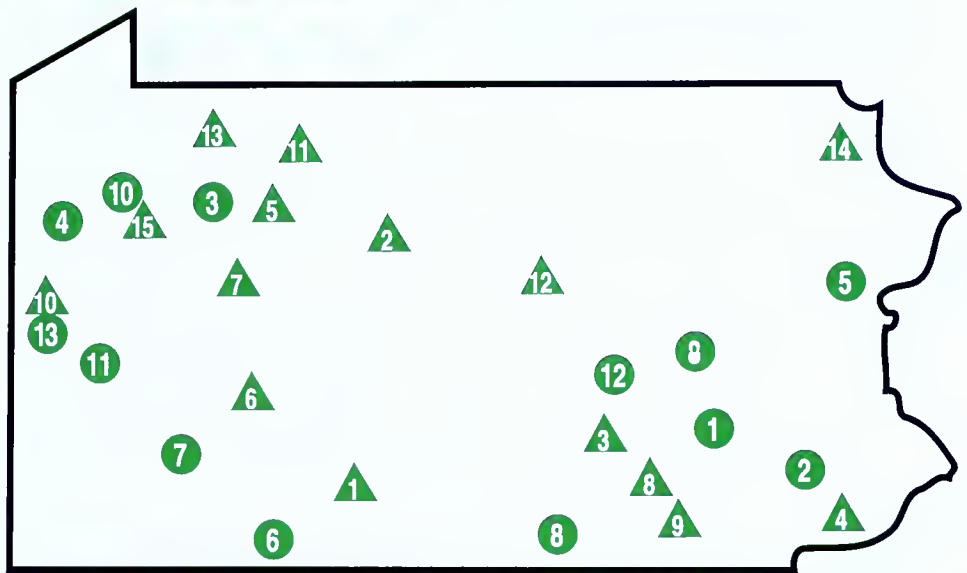
Similar conditions prevail on Clarks Creek below the DeHart Reservoir, and on Codorus Creek below Lake Marburg.

- The regulated section flows through land where limestone springs add significant flow to the main stem. Because of its origins below the surface, limestone spring water temperature varies little over the seasons. So in streams where the limestone component of flow is substantial, temperature extremes are mitigated. Of the list of currently regulated streams, Donegal Creek and Yellow Creek are examples that fall into the limestone-influenced category.

- Streams that are protected by a heavy canopy of trees and overhanging bushes tend to maintain cooler temperatures during the hot months. Examples are Little Sandy Creek and East Hickory Creek.

- Anglers who ply delayed-harvest stretches should always know the location of any cool-water tributaries. In addition to softening the effect of prolonged hot spells, these cool-water tributaries serve as refuges for trout fleeing excessively warm water in the main stem.

For many of the delayed-harvest waters, the second opening day is just that—the start of another season of fishing to feeding trout. Fly hatches in late June may still be abundant on many streams. As we move through July, the morning Tricos begin to appear and then the evening White Fly. And yet, ahead lie the golden days of autumn with browns getting ready to spawn and preparing for the rapidly approaching onset of winter. Then the survivors of the long warm season seem to know they had better take a stab at eating just about anything they can get to. They'll have their eyes on adroitly worked spinning lures and flies.



Delayed-Harvest Areas

▲ = fly fishing only

1. Yellow Creek, Bedford County
2. Driftwood Branch, Cameron County
3. Clarks Creek, Dauphin County
4. Ridley Creek, Delaware County
5. West Branch Clarion River, Elk County
6. Little Mahoning Creek, Indiana County
7. North Fork Redbank Creek, Jefferson County
8. Donegal Creek, Lancaster County
9. West Branch Octoraro Creek, Lancaster County
10. Slippery Rock Creek, Lawrence County
11. Marvin Creek, McKean County
12. White Deer Creek, Union County
13. Caldwell Creek, Warren County
14. Dyberry Creek, Wayne County
15. Little Sandy Creek, Venango County

● = artificial lures and flies

1. Tulpehocken Creek, Berks County
2. Middle Branch White Clay Creek, Chester County
3. East Hickory Creek, Forest County
4. Cool Spring Creek, Mercer County
5. Tobyhanna Creek, Monroe County
6. Laurel Hill Creek, Somerset County
7. Loyalhanna Creek, Westmoreland County
8. Codorus Creek, York County
9. Bear Creek, Schuylkill County
10. Oil Creek, Venango County
11. Deer Creek, Allegheny County
12. Manada Creek, Dauphin County
13. Neshannock Creek, Lawrence County

Big-Water Tactics, Small-Water Walleyes

by Jim Crawford

Following their post-spawn recovery period and continuing through mid-fall, walleyes can spread out in lakes and can become difficult to locate and catch. This is especially true in many of Pennsylvania's smaller lakes like Marsh Creek, Nockamixon and Blue Marsh.

Larger lakes like Wallenpaupack and Raystown can be even more frustrating to fish. Slow, methodical presentations don't produce well when the 'eyes are spread out and suspended, and when forage is plentiful.

Still, you can turn the odds in your favor on these smaller waterways if you use tactics perfected on Lake Erie to cover lots of water in a short time.

I "discovered" the deadly effectiveness of weight-forward spinners a few years ago on an especially frustrating, hot, bright Fourth of July at Lake Nockamixon, in Bucks County. Until then, I had considered weight-forward spinners unique to Lake Erie, where I had learned to fish them properly. My using them was a desperation move after nearly five hours of watching suspended walleyes on my depthfinder and not being able to connect. The 'eyes were 12 feet deep in 18 feet of water between the shoreline and the main creek channel. The wind was right for a slow drift and the electric motor kept me over the flat where the fish were.

By the third cast, a four-pound walleye gnashed its teeth alongside my boat and I anticipated a delightful dinner.

The remainder of the day was equally productive and when I finally decided to return to the boat ramp at Three Mile Run, I tried another Lake Erie tactic, slow-trolling a crankbait.

This also proved successful. I am convinced that these big-water tactics work well on any walleye lake, no matter how small it is.

Lure

A weight-forward spinner begins with a metal shaft, either straight or hairpin-shaped, followed by a keel-style or aerodynamic lead body. Behind the lead is a spinner blade, one or more colored beads and a single long-shanked hook. The ad-

vantages of this design are threefold. First, they cast like a rocket. Second, their unique design attains near-neutral buoyancy when retrieved so that they stay in the strike zone most of the time. The third advantage is that the spinners work well combined with any live baits used for walleye.

Tackle

Either spinning rods or baitcasters work with weight-forward spinners, but sensitivity is very important. Graphite or graphite-fiberglass rods are best.

The sensitivity is not for detection of light takes. Subtle bites do not happen in this situation. You need the sensitivity so that you can feel when the spinner blade just begins to turn. This is the speed at which you want to retrieve the lure.

Spinning rods in the six- to 6 1/2-foot length work well and baitcasters in 5 1/2- to six-foot lengths are practical. Medium-action rods are the most commonly used.

A big advantage to using a baitcasting rod is that by lightly thumbing the spool as you count down the lure, you can detect strikes that you might not notice with spinning equipment. The baitcaster is also stiffer than a spinning rod, providing more backbone to the hook set.

Line strength for spinning rods should not exceed eight-pound test with six-pound test the overall favorite. Baitcasters can get away with lines up to 10-pound test.

**Increase your
walleye catches on
smaller waterways
by using tactics
perfected on
Lake Erie to cover
lots of water in a
short time.**

Method

When you find the walleyes, set the boat to drift over or along with them. Dress your spinner with a piece of live bait. Night-crawlers, leeches and minnows work best in this situation.

Cast the weight-forward spinner out and count it down to the proper depth. Figure that the lure drops about one foot per second. Adjust this rule according to the weight of the spinner and the line diameter. Thinner-diameter lines allow the spinner to drop faster than larger-diameter lines.

When the lure has reached the depth of the fish, or when it's slightly above them, begin your retrieve. When you feel the blade begin to turn, maintain that speed. After five or six turns of the reel, sweep the rod back a few feet. Then crank it back to its original position. Continue this retrieve until you feel the spinner coming up out of the strike zone.

Usually, the walleyes hit during the pause and drop the lure makes after you've swept it back. Be ready to set the hook.

Trolling

Trolling with planer boards has long been accepted as a successful method of catching suspended walleyes. However, on small lakes with lots of boating activity, the boards require too much room.

Downriggers don't work well with crankbaits in shallow depths of 30 feet or less. The crankbaits tend to dig deeper than the downrigger weight, so they must be run very close to the ball. The large cannonballs frighten the fish, making downriggers unproductive.

Many Lake Erie charter captains place a rubber-core sinker two to four feet ahead of the crankbait. The weight of the sinker varies according to the depth of the fish and the depth to which the lure dives.

The depth of the crankbait is now controlled by the weight of the sinker and the diameter of the line. The lighter the line, the deeper the lure dives.

Troll slowly. At slow speeds, only those lures that wiggle wickedly will work. Test them near the surface before using them.



Tackle for small-water walleyes includes spinning outfits of six to 6 1/2 feet and baitcasting rods of about 5 1/2 feet. Line strength should be six- to eight-pound test for spinning outfits and up to 10-pound test for baitcasting gear.

Eastern Pennsylvania Hotspots

The tactics discussed in this article work well on any lake containing walleyes. Here are a few hotspots at several lakes.

Lake Nockamixon

- Between the mouth of Tohickon Creek and Old Bethlehem Road.
- Along the south shore across from the marina.
- Between the Haycock Boat Access and the dam along the eastern shoreline.

Lake Galena

- Between the standpipes on the west side of the lake.
- In front of the canoe rental concession.

Marsh Creek

- The long leg of the lake on the southeast side.
- The main lake between the long leg and the boat ramp.

Blue Marsh Lake

- West shore between the boat ramp and the bathing beach.
- Extended flats between the two boat ramps.—JC.

Keep in mind that walleyes are attracted to longer, thinner crankbaits rather than the short, fat ones commonly used in bass fishing.

Perch, crayfish and fluorescent colors like orange, yellow and red work best from mid-summer through fall. White, pearl and yellow perform well earlier in the year.

There is always controversy over which lure color and size to use. One strategy suggests "matching the hatch," or duplicating the size and color of the school of baitfish.

This puts the lure in direct competition with hundreds of similar targets for the feeding walleyes. Luck then becomes a factor in your success.

The other thought is to use a larger, differently colored lure than what is in the school. The idea is to present a bait that stands out from the baitfish and will be noticed instantly by the predators.

Both ways work. Try them until you discover which works best on that particular day.

All in all, traditional methods of pinpoint walleye fishing are not productive at this time of year. Covering lots of water using the methods described here is much more effective.

It is now June and the walleye are dispersing all over many lakes as they follow the forage. If you do the same, you'll catch walleye during this difficult season.

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Weight-forward spinners cast very well and they are well-suited for use with baits. Try drift-fishing a weight-forward spinner dressed with a minnow or piece of worm.

Lake Arthur's



Better Bass Fishing

by Linda Steiner

Ask the Lake Arthur regulars the best time to catch big largemouths and they'll tell you, "in the winter, through the ice." So how do you explain the fact that avid bass angler Ken Pate caught his nearly seven-pound bigmouth in the middle of a scorchingly hot summer day, in less than a foot of water? Even Ken can't explain it, except to say, "The big ones are here. You just have to put your time in fishing for them and get lucky."

The result of Ken's bass fishing savvy and good luck are corroborated by other recent trophy catches.

For instance, in 1991, Ken Watterson's seven-pound, 9½-ounce largemouth, a January catch, and David Ricciadella's seven-pound, five-ounce bass, caught in March, topped last year's list of Senior and Junior Angler Awards taken from Lake Arthur.

Even more impressive is Rick Nitkiewicz's nine-pound, 10-ounce bass taken from the lake in 1990. Rick's Senior Award fish was caught in October, as was the top Junior Award, a six-pound, 12½-ounce bass taken by John Chormenky. In 1989, the "big bass through the ice" axiom held true, with a seven-pound, four-ounce largemouth hauled up by Kevin Batlista in January, and a six-pound, 2½-ouncer taken in February by John Wright.

For those few Pennsylvania anglers who haven't discovered Lake Arthur, the Butler County impoundment is the centerpiece of Moraine State Park, located some 30 miles north of Pittsburgh. Easily reached by routes 79 and 422 from the Pittsburgh, New Castle and Sharon (PA)/Youngstown (OH) population centers, it's hard to believe the fishing is so good. But at more than 3,200 acres, much of it the sort of shallow, weedy waters that work well for bass, Lake Arthur can support a lifetime of fishing by more anglers than use it now.

Lake Arthur was opened to the public in 1970 and has received heavy and continuous fish stocking. Through the years it has consistently produced bragging size largemouths, and by all accounts it is still the "good ol' days" as far as catching them is concerned. Ken Pate and his father, Ernie, both active members of the American Bass Association of the Lake Erie Region, insist that Lake Arthur is the "top bass lake



photo: PA Fish & Boat Commission

in the state." Jim Bohrer, who fishes the lake and operates a nearby sports store, says, "Lake Arthur produces more trophy fish than any other lake in Pennsylvania."

Anglers may be forgiven for their allegiance to a favorite lake, but Butler County Waterways Conservation Officer (WCO) Gene Scobel, and the Commission's Area Fisheries Manager (AFM) Craig Billingsley, also agree. From what these two professionals continue to see in the way of catches, Lake Arthur remains one of the top waters in the state for largemouths, and it's well worth any angler's visit.

Located on the bed of an extinct glacial lake (the park's name *Moraine* refers to a glacial landscape feature), today's Lake Arthur is a productive water, says AFM Billingsley. The maximum depth of the lake is only about 30 feet, with much of it 15 feet or less, with high alkalinity. The site formerly included coal mines and oil and gas wells that were plugged to ensure good quality water.

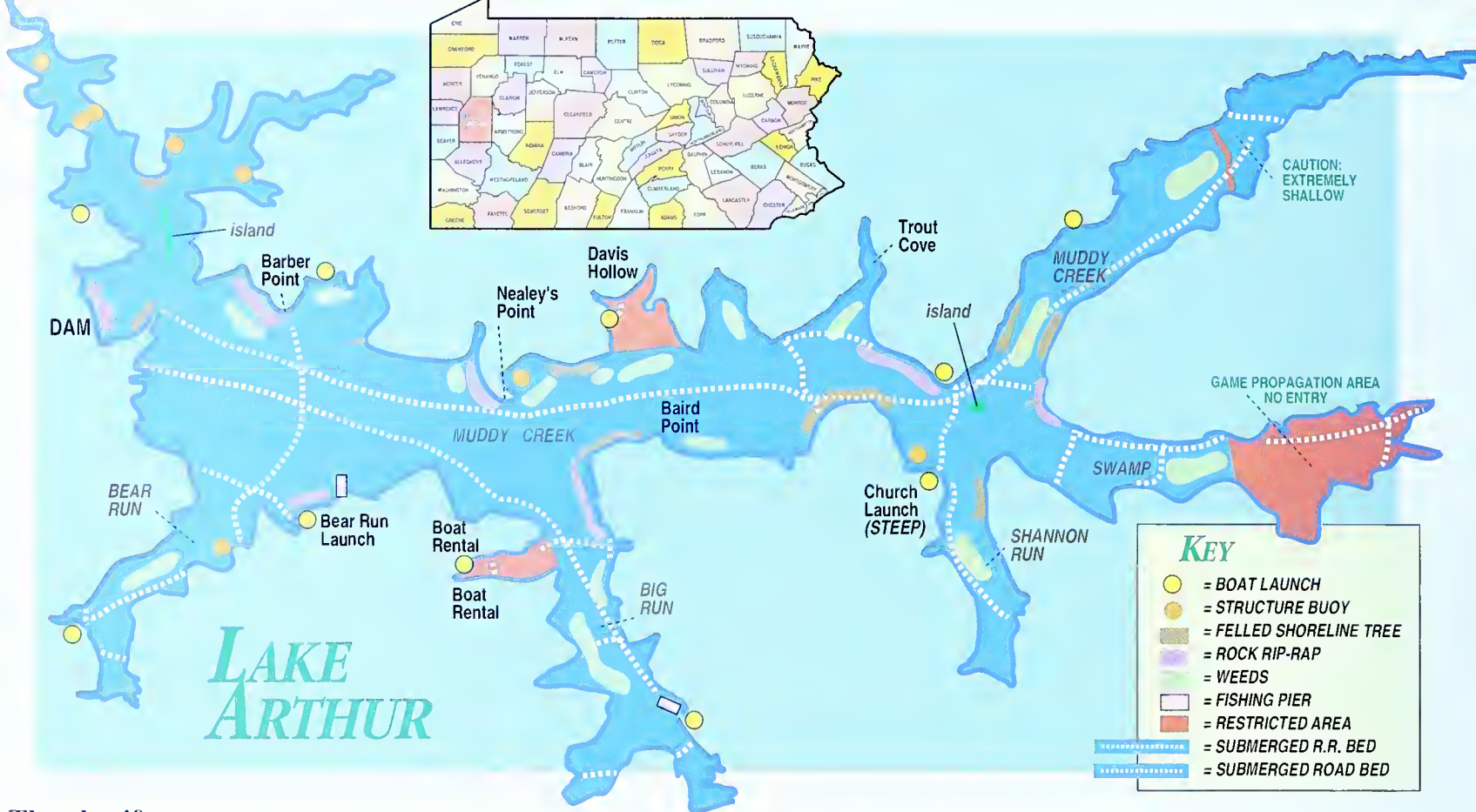
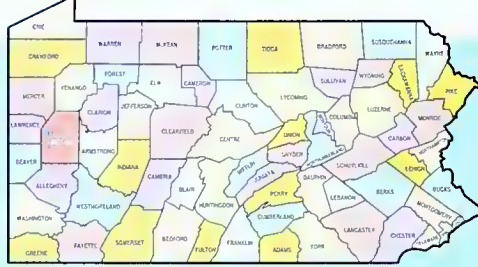
Add to Lake Arthur's vast size and fertility the fact that it is currently managed as a Conservation Lake (page 30 in the *Summary of Fishing Regulations and Laws 1992*). Under this designation, largemouth and smallmouth bass must be 15 inches or more to be creel and there is a daily limit of two, combined species. Other fish in the lake are also subject to reduced sizes

and limits as outlined by the program.

Lake Arthur was placed under Conservation Lake regulations in 1986, according to Billingsley, "not so much to improve the catches, but to maintain it in its present condition, especially with the lake so close to metropolitan areas." The 15-inch minimum bass-keeping size, he adds, "has done very well in reducing the mortality of bass, while reproduction has been adequate. One would expect under restrictive regulations to have growth rates stagnate, but in Lake Arthur this has not happened."

Angler Ken Pate adds that since the lake has had special regulations, he has seen increased catches of bass and a better quality fish. "Back before Lake Arthur became a Conservation Lake, if I caught 20 bass, I had maybe one five-pounder. Recently for every 20 bass, I'm getting three of five pounds or bigger."

Fisheries Manager Billingsley corroborates that. "During the period it has been a Conservation Lake, the number of large bass in Lake Arthur has actually increased. It doesn't appear that anglers are cropping bass off at the legal 15-inch limit, although there are more bass around and there are more in the 15-inch category. All in all, Lake Arthur has an excellent bass population." In his studies, Billingsley has seen plenty of bass 8½ to nine pounds, but he has seen very few caught.



The alewife

Concerning why bass flourish here, Billingsley credits the alewife. The alewife is a minnow-like fish commonly associated with the Great Lakes, but it has become established by stocking in other Commonwealth waters. In Lake Arthur, the alewife has provided a prolific and nutritious food base, not only for bass, but for walleye, muskellunge and striped bass.

You can have some of the best summer fishing, say Ken and Ernie Pate, when the alewives come into the shallows at dark. Anglers watch for the dimpling of the small fish on the surface along weedy bays, edges, backwaters and off points. This is accompanied by the splashing of larger fish as they slash through the school. Ken says the predator fish come in a predictable succession each evening, with largemouths hitting early, for an hour or so. Then the walleye move into the alewives, and then the striped bass.

Jim Bohrer agrees. "The evening eyelet goes from about 8:30 p.m. in the summer until around midnight. The feeding bass seem to gorge themselves on the alewife schools, and then they are done. I like to fish for them by moving into the school slowly with an electric motor, or just drift with the wind." Because the fish are in close, there's better shore fishing at night, for those who don't have a boat, than during the day. Both the Pates and Bohrer say the alewife schools may be in the same spot every night for two weeks, and then they suddenly disappear. Anglers need to search for them again, but it's worth the looking.

Fishing in the evening when the alewives

are in the shallows and at the surface means top-water fishing. "This is a top-water lake for a large part of the year," says Ken Pate. No one method or lure outdistances the other. Instead, anglers take bass with a variety of techniques. The Pates suggest trying jigs "early and slow," and when it's warmer go to plastic worms, top-water lures, spinnerbaits, buzzbaits, and minnow imitations. For overall action, they suggest live bait, especially a medium-size shiner.

During the day in summer, Ken Pate recommends fishing deep, although his own shallow hot-day trophy belies the rule. Adds Jim Bohrer, "Three-quarters of the bass are caught in water no more than eight feet deep, rather than in the deeper parts of the lake." The depths seem reserved for walleyes, muskies and stripers.

Six jutting fingers

Physically, Lake Arthur sprawls west and east, with six jutting fingers. Of special interest to largemouth enthusiasts are the weedy backwaters, bays and coves, especially those created by the flooding of Bear Run, Big Run, Shannon Run, Swamp Run and Muddy Creek. Edges and dropoffs created by the submerged remains of roadbeds and railroad lines crisscross the lake floor. The roads and railroad embankments project several feet above the surrounding bottom, attracting fish.

Sunken creek channels make sinuous dips in the landscape of the lake bed. Muddy Creek's channel can still be traced from its entrance in the lake's northeast corner to the dam breast on the west side. There are

also natural sandbars, submerged stumps and a few islands to add angling interest.

Artificial structure

When Lake Arthur was constructed, most of it was cleared of structures and trees. Such was the lake-building practice of the time. To remedy the sterility this created, in the past several years, artificial bottom structure has been placed in the lake to attract fish for spawning and cover.

Wooden cribs, a pyramid of wooden posts, weighted and wired Christmas tree clumps and brush piles, and catfish spawning barrels have been sunk. On the banks, trees have been felled with their branchy tops in the water and butt ends cabled to shore. Rock rip-rap and gravel placed on the dam breast and along banks to prevent erosion have also inadvertently become fish havens.

The Fish & Boat Commission, Moraine State Park, and the Moraine Preservation Fund, along with sportsmen's groups, have been responsible for the planning, placing, and funding of the fish habitat structures. The effort is continuing and those involved are enthusiastic. To date, several hundred cribs have been added to the lake.

Veteran angler Ernie Pate says he relies heavily for success on locating the newly placed fish structure, sunken highways and railroad beds, and creek channels. He finds bass havens by seeking out shallow and deep weed beds as well.

"You can take your preferred way of fishing and make it work for you," says Ernie. "It's more important to have a lake map and a depthfinder so you can locate

structure.” To help anglers, white buoys marked “Fish Structure” have been placed throughout the lake where cribbing and other habitat devices have been sunk. Lake maps are available at area sporting goods stores and at the state park office.

The best bass fishing is said to be in the arms of the lake, where the water is shallow and weeds grow well, especially in the three bays east of Route 528. In the Pates’ and Bohrer’s experience, the recommended boat launch for serious anglers is on the north shore along Route 528. The least useful to fishermen is the launch near the Bear Run Picnic Area in the Pleasant Valley Day Use Area. Too much pleasure boating traffic is the reason.

During summer weekends, fishermen may find it difficult to troll the main body of the lake because of the number of pontoon boats, sailboats, wind surfers and others just out for a ride. A 10-horsepower motor is the largest allowable on Lake Arthur, but with it, says Bohrer, it’s only a 20-minute run from one end to the other. Some places are off limits for certain boats and/or fishing, such as the no-motor area near the swimming beach at the Pleasant Valley Day Use Area, and the no-fishing zone in the Davis Hollow Marina bay.

No entry is permitted for most of the year in the upper part of the Swamp Run arm. This is a game propagation area open only to ice fishing from January 1 until ice-out. The backwater does give up good catches to hardwater anglers. Shoreline fishing is limited on the lake because of its heavily wooded banks, but walking anglers can find a place to cast along Route 528 by hiking in or by using the fishing piers.

The accompanying map shows details of Lake Arthur structure and access. Each section or arm has its own features. In the northwest, the dam breast area has depths plunging to 30 feet, felled trees, scattered cribbing marked with buoys, and an island. There are rip-rap and weeds toward Barber Point along the north shore, and weeds and rocks on both sides of Nealey’s Point. East of the point is cribbing and farther along, felled trees and brush piles. There is a long weed bed opposite the restaurant, then rounding the point past the marina bay is an intriguing cove with weeds and lily pads. Next is narrow Trout Cove, shallow and weedy. Anglers should work its mouth for bass. Rip-rap lines the bank toward Route 528.

Best bass area

East of Route 528, anglers are in perhaps the best bass area of the lake. An island breaks the surface near the northside boat

launch. Then fishermen enter the finger of Muddy Creek. A shallow, weedy bay awaits them, with felled trees along both shores at its mouth, and a productive stream channel. Rip-rap and felled trees are on the round point between Muddy Creek and the Swamp Run branch.

Swamp Run is very shallow, with brush, sunken stumps and weeds. More structure lines the point between that branch and Shannon Run. The Shannon Run arm is popular for bass, with underwater growth and flooded ponds.

On the south shore, heading back west, there is a buoy marking sunken fish cribs near the church launch. Past Route 528, trees were felled into the water around the gentle curve toward Lost Cove. From there toward Baird Point is a weed bed, plus rocks and stumps. Rounding Baird Point are dropped trees and rip-rap, and the angler enters the Big Run arm.

Big Run is a noted bass spot, varying from 20 feet at its mouth to less than five near the launch at its weedy southern end. Near the launch, anglers can wade and fish the flooded roadbed.

Leaving Big Run and passing the day-use and swimming area, there are sunken Christmas trees and rip-rap near the fishing pier at the Bear Run launch. In the Bear Run arm, the lake’s southwest corner, are more weeds, sunken Christmas trees and a buoy marking cribbing.

Smallmouths

Although most of Lake Arthur’s bass fishing is for largemouths, lately anglers have been taking smallmouths, especially in areas with rocks, gravel or steep edges. “I think the smallmouths are finding their niche in the lake, in locations that are suitable,” says Bohrer. He has seen some good smallmouths come out of the lake, including one over four pounds. Ken Patc regularly catches smallmouths up to 10 inches, but only during the last half-dozen years. Most of his smallmouth catches have been “dumb luck” while fishing for something else.

In Lake Arthur, as elsewhere, the trend is for anglers to catch and release the take. Many of the reported bass lunkers have been put back and are there to catch again. AFM Billingsley says that during a recent creel survey, he found fewer bass than expected on stringers, although anglers told him they had good luck. Bass tournaments at the lake, such as the American Bass Association’s, say the Pates, require catch and release. Bohrer adds he knows anglers who consistently take trophies who are “having maybe one big bass mounted, for a

keepsake, and putting the rest back.”

WCO Scobel beams when he says that “Lake Arthur has been giving an unbelievable return for the fish that the Fish & Boat Commission has stocked.” Although that planting program includes more than bass, they are certainly conforming to the trend. A huge water, Lake Arthur won’t give up its secrets in a day, or even a lifetime of fishing. But a few hints from some anglers willing to share their knowledge, a map or two, the gas to get there, and the time to fish and anyone can be well on the way to having a productive day.

Lake Arthur Basic Information



Bait, tackle

Moraine Fishing & Camping Center
(412-865-9318).

Galida’s Sporting Goods (412-865-2178).

O’Donnell’s Sports Supplies
(412-368-3418).

Mark’s Sports Shop (412-368-9677).

Lodging

Michael’s Lake Arthur Motel
(412-865-9564).

McKee’s Motel (412-865-2272; 865-9241).

K & L Motel (412-287-9954).

The Apple Butter Inn
(B & B, 412-794-1844).

Campgrounds

Bear Run Campground (412-368-3564).

Lake Arthur Family Campground
(412-794-9901).

Cooper’s Lake Campground
(412-368-8710).

Rose Point Campground (412-924-2415).

Restaurants

Michael’s Lake Arthur Motel Restaurant
(412-865-9838).

Marina Restaurant (412-368-9192).

Bill’s L.A. Pizza (412-368-8557).

Eppinger’s Restaurant (412-368-8383).

Moraine State Park

R.D. 1, Portersville, PA 16051; office phone, 412-368-8811. Cabins only, state reservation system. No camping. Contact office for details and brochure outlining other park recreation. Boat rentals Memorial Day to Labor Day, and weekends through October, weather permitting (412-368-9000).

Additional information

Butler County Chamber of Commerce
(412-283-2222).—LS.

A Foam Cricket



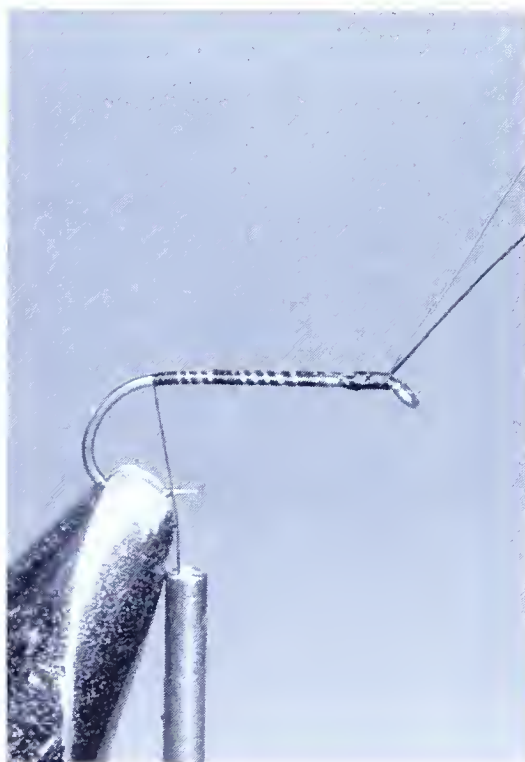
by Chauncy K. Lively
photos by the author

The most successful terrestrial patterns are those that represent insects trout can readily recognize from past gastronomical experiences. Mere abundance and availability of a particular insect do not guarantee the trout will accept it as food. Many anglers have pondered the water strider's lack of appeal to trout, despite its constant presence on slack water along stream banks.

On the other hand, there are insects that appear on the water less frequently but engender an enthusiastic response from feeding trout. Notable among these are the kicking insects, including grasshoppers and crickets. Among the latter, the field cricket is perhaps the most significant to fly fishers.

Crickets belong to the Order Orthoptera and enjoy wide distribution. The field cricket is at home in a variety of habitats: meadows, woods, lawns and fields. Robust of body, it is a half-inch or more in length, offering a substantial morsel to opportunistic fish on the not-infrequent occasions it blunders onto streams or ponds. Once waterbound, it generally swims with a "gotta get outa here" sense of urgency, kicking its muscular rear legs in the long strokes of an Olympic swimmer. But the commotion it creates on the surface is often its undoing. It draws attention to its plight in a way that fish find hard to resist.

The Foam Cricket is the product of evolutionary changes that began about 30 years ago. At that time I tied a deerhair cricket



1 Tie in the thread behind the eye. Select two hairs for antennae, match the tips and tie them in together behind the eye for an effective length equal to the overall hook length. Take a turn or two of thread in front of and snug against the base of the antennae to spread and angle the hairs upward. Spiral the thread over the hair butts to the bend.



2 Cut a taper in one end of the foam strip and tie in the strip at the bend with the tapered end overhanging the bend about $\frac{3}{16}$ -inch. Tie in the biot tails at the sides with two turns where the foam was tied in. Then bend the butts back and wind over them to lock. Trim the excess.



3 Hold the free end of the foam strip over the shank with the right hand and with the left, wind the thread around the foam and shank in firm, spaced turns to a point about $\frac{1}{8}$ -inch behind the eye. Then lay the dubbing needle across the foam behind the eye and fold the foam back over the needle. Hold the foam in position, withdraw the needle and bind it with two firm turns to form the head.

dressed with a bunch of hair held parallel over the shank and tied in behind the eye, flaring the short butts over the eye. Then the hair extending to the rear was separated into two unequal parts: 75 percent next to the shank and the remainder above. The lower bunch was bound to the shank with equally spaced turns extending to the bend. Taking advantage of the compressibility of hollow deer body hair, I drew each of the spaced turns tightly, bulging the hair between the pressure points. I called this technique "bind and bulge." I arranged the other bunch as an overbody and tied it down only at the bend. Then I trimmed the free hair in the rear to a point, extending slightly behind the bend, and I trimmed the flared hair in front ball-shaped for the head. Tails and kicker legs of goose quill fibers and forelegs of deer hair completed the pattern.

It had the proper cricket silhouette, it rode flush in the film and it caught a lot of trout. Trouble was, often after only two or three trout it became so tattered, it was almost unrecognizable. Bundled hollow deer hair is particularly vulnerable to the teeth of trout and it was obvious the fly needed some sort of armor plating.

Eventually I eliminated the hair overbody and instead, stretched a quill section of goose primary over the back of the bound hair body. After I dressed the pattern, I coated the quill section with vinyl cement for durability. Although the newer version could hardly have been described as indestruc-

tible, it was considerably tougher than its predecessor. It was in the latter form that I described the Quill-Back Cricket in the February 1969 *Angler*. After a few years I substituted a strip of sheet vinyl for the quill back and durability was improved still further. Then along came Evasote, or Fly Foam, as some suppliers call it, and it opened new opportunities in the dressing of terrestrial patterns.

Fly Foam is generally marketed in sheets of $\frac{1}{8}$ -inch to $\frac{5}{32}$ -inch thickness. Using a sharp blade and straight edge, cut working strips from the sheet in whatever thickness you need. To my delight I found I could use a single strip of this material in practically the same way I used the "bind and bulge" and "foldback" techniques with deer hair.

But the new material held several advantages over deer body hair. It was easier to work with, it had superior durability, it was lighter in weight and its floatability was unmatched. It seemed to lend itself perfectly to a cricket pattern, and the Foam Cricket was the outcome.

Many of us who have been around for a while can remember a time when the term "dry fly" meant a floating pattern with body, tails, hackles and generally, wings. We paid scant attention to representing terrestrial insects except for grasshoppers and occasionally ants. It wasn't until the post-World War II years that the team of Marinaro and Fox in the Cumberland Valley and John

Crowe in western Pennsylvania independently developed terrestrial patterns that completely shed the traditional image of the dry fly. Their ideas captured the imagination of fly fishers countrywide and the contents of fly boxes began to change drastically. But there were a few who held out for tradition.

In the 1960s I enjoyed the acquaintance of a distinguished, elderly gentleman who dearly loved to fly fish. He was more nearly a dry fly purist than anyone I've ever known, but he was not an elitist. He simply enjoyed fishing the floaters more than other flies, regardless of whether the trout cooperated. Once I gave him a handful of ants and beetles to try on his favorite stream. A few months later our paths crossed on Caldwell Creek and we stopped to chat about fishing. I mentioned that I had caught some nice browns on beetles and Herb said, "I'll have to admit I've never tried those flies you gave me. Somehow, they just don't look like dry flies."

Times have changed, as have concepts. Were Halford to peek into the fly box of a typical present-day angler, he would probably scratch his head, pondering some of the strange forms. But strange is only in the eyes of the beholder. To a gourmand trout, an oddball may be beautiful—especially if it has the look of an errant cricket.

ANGLER



4 Hold the foam over the back and wind it in turns spaced as in step 3. Make a last turn over the tail windings. Then reverse directions and wind the thread forward in the same spacing to the rear of the head.

Dressing: Foam Cricket

Hook: Size 12, regular shank.

Thread: 6/0 black prewaxed.

Antennae: Two straight black bear hairs.

Body: Strip of black Fly Foam $\frac{5}{32}$ -inch wide, $\frac{1}{16}$ -inch thick. (Foam may also be gray or white and tinted black with a marking pen after completion.)

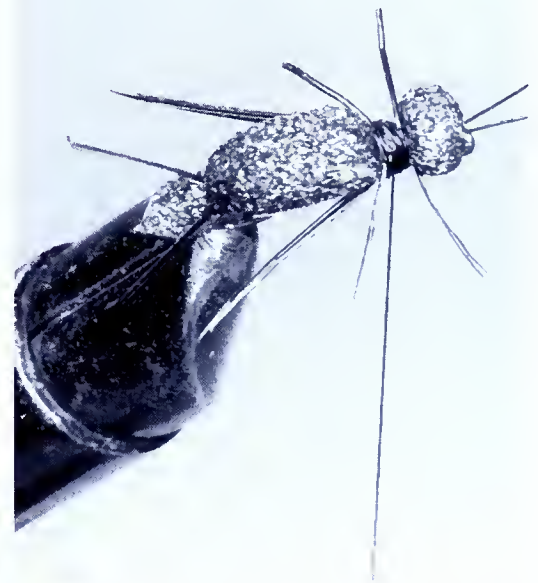
Tails: Two black goose biots.

Kicker legs: Two black goose biots.

Forelegs: Two black deer hairs.



5 Pull the free end of the foam strip forward over the back and tie it off behind the eye. Trim the excess.



6 For kicker legs, tie in the biots at the sides behind the head. Bend the butts back and bind them as in step 2. Trim the excess. For forelegs, tie in two hairs criss-crossed under the fore end of the body. Trim them to the desired length. Whip-finish the thread behind the eye and apply lacquer to the exposed winds.

The Changing Face of June Trout Fishing

by Richard Tate

By the beginning of June, many trout fishermen figure that the trout that haven't been creel'd by June are too tough to catch. They're wrong!

Most respectable trout streams and even some so-called marginal Pennsylvania trout waters harbor excellent populations of trout all season long. However, you have to adapt your fishing tactics to take advantage of the trout's feeding habits.

Trout activity is governed by a variety of factors, including water temperature, water conditions, fly hatches and fishing pressure. During May, wonderful hatches of mayflies and caddises probably influence trout behavior more than anything else as the trout feed on these exciting afternoon and evening hatches. However, as June arrives, the hatches become less important. Hatches that may have provided several hours of fishing during a May afternoon or evening may now last a scant 15 or 20 minutes at dusk, providing fast but short-lived action. In addition, the onset of hot weather alters trout behavior on many streams because of increasing water temperatures.

Knowledgeable trout anglers change the time of day they are astream in June. Instead of being creatures of the afternoon and evening, veteran trout fishermen regularly visit their favorite streams before noon. Why? The water temperature is the coolest in the morning. Trout metabolism is governed by water temperature. Researchers have found that the brook trout's optimum temperature is about 60 degrees, and the brown's is a little higher, at figures variously listed from 62 to 64 degrees. In *The Ways of Trout*, author Leonard Wright says that trout feed most actively as the temperature approaches their optimum. The more rapid this approach, the faster the action.

June mornings

Wright's observation is crucial for successful trout fishing in June, and this occurs during the morning on most Keystone State trout waters. Paying attention to the temperature of your favorite stream can help you maximize your fishing time. One of my favorite trout streams is a prime example. Its temperature generally hits 64 degrees between 10:30 and 11:30 on most June mornings. I take advantage of this by fishing from 8:00 or 8:30 until 11:00 or 11:30. Often the action is modest until 9:30 or so, but as the water temperature quickly approaches 64 degrees, the action picks up, and I regularly land a dozen trout in the hour or hour-and-a-half when the water temperature rises rapidly.

In fact, during the past few seasons, I have often delayed my arrival on the stream until 9:00 or 9:30 so that I don't waste time fishing over relatively inactive trout.

Late-evening fishing can be productive for the same reason, even after the good fly hatches completely end. After the sun goes off the water, the water temperature begins to decline. Though this decline occurs much more slowly than the rise in the late morning, it is often enough to activate the trout. Of course, coupling this temperature decline with even a modest fly hatch results in bursts of trout action that can nicely top off the fishing during hot June

days. It can be a time to take a nice trout or two as well.

For instance, one evening last June after one of my son's little league baseball games had ended, I had nearly an hour of available fishing time. I had stashed my gear in my pick-up truck, hoping for such a favorable opportunity. At the game's conclusion, I immediately hopped in the truck and drove to one of my favorite stream sections. Things began slowly, but at 8:40 a decent hatch and spinner fall of Sulphurs activated the trout in the cooling water. The result was wonderful. By 9:15 I had caught and released 18 wild brown trout between seven and 14 inches from this small, public-access stream.

Most June trout fishing is done in the absence of hatches, and you have to develop a set of tactics that take fish. I prefer to fish with dry flies, and I use them at least 80 percent of the time in June.

When I first began to fish for trout, now more than 20 years ago, I was told that dry flies were useless when there were no hatches to stir up the fish. In fact, veteran anglers discouraged my fishing at all after May. Most said that the trout of June and later were nearly impossible to catch. Thankfully, I am stubborn, and I determined that I was going to learn to deal with these so-called impossible fish. I also knew that Pike DiBartolome, a legendary live-bait fisherman in my bailiwick, caught trout all summer long, and I figured that my perseverance would eventually pay off.

For a few years I relied on the artificial ants and small Letort Crickets touted by authors of that time. They helped me catch enough trout to keep me interested. However, when I became a convert to the wonderful Wright Caddis dry fly, my catch figures increased tremendously. Not only did I discover, as its creator Leonard Wright had, that this caddis pattern was a good imitation of hatching caddises. I also found that it was a super fly pattern for bringing trout to the surface in the absence of hatches.

I discovered that tan-hackled and winged versions of Wright's caddis worked best on my favorite creeks. Though I experimented with caddises tied with dun and brown hackles and wings, they caught only about half as many trout as the tan version. In addition, I found that unstripped peacock herl ribbed with relatively wide gold tinsel helped to attract trout.

Another dry fly that's effective on the trout of June is a variation of the Adams. I generally call this variation a Grizzly Parachute. Tied with a standard muskrat fur body, the Grizzly Parachute has a white calftail wing and a grizzly hackle wound around it where the float of a dry fly is not always easy to follow.

The Grizzly Parachute and Wright Caddis account for hundreds of trout for me each summer on small to medium-size Keystone State trout streams such as Yellow Creek in Bedford County and Cross Fork Creek in Potter County.

Underwater offerings

Underwater deceits also have their place as June sets in. The flows of larger trout waters, like Penns Creek and the Little Juniata River, are not severely reduced at the onset of hot weather. These



Fishing a size 10 or 12 Leadwing Coachman with a Black Ant downstream early in the morning on small streams is a productive tactic in June.

waterways often cannot be probed efficiently with dry flies until later in the season.

On these waters, fly rodders have several choices. They can use streamers, nymphs or wet flies. Of these three methods, using a brace of weighted nymphs to dredge for trout is probably most effective. I prefer to use a large weighted stonefly nymph as my tail fly and a smaller, general pattern nymph as a dropper when I'm probing larger rivers. In addition, I often add one or two size B splitshot to my tippet to get my flies down where the trout are. At one time that was my complete rig, but recently I've added another component that expert nymphers like Altoona's Walt Young have told me I ought to use: a small, fluorescent orange strike indicator. I put it two or three feet above my dropper fly. As my nymphs drift along, I tug when I detect any subtle movement of the indicator. At least half the time the movement indicates trout, and from my notes, I'd estimate that the indicator has doubled my hook-ups while I'm nymphing on larger streams.

Walt Young often uses two indicators, spacing them about three feet apart on his leader. That helps him in deeper water when the first indicator is underwater and is difficult to see. Once rigged up, all you have to do is flop the nymphs into a convenient riffle and let them drift downstream.

Fishing a brace of wet flies can take trout in June for you, too, but I don't think they're quite as consistent as nymphs. However, I believe they're a little more effective on larger trout. I sometimes use a brace of wet flies, usually size 10 or 12 Leadwing Coachman and Black Ant patterns. I fish my way downstream on small creeks early in the morning before I turn around to come back upstream with a dry fly. Often I land the morning's largest trout while using the wet flies.

Night fishing

photo- Richard Tate

The best time to use wet flies, however, is at dusk and into the dark. Though several spooky encounters with midnight riders have caused me to decrease the number of after-dark excursions I make for trout, I still manage to brave the darkness a few times each summer. Last June I went out after dark several times. The first of these expeditions was an unspectacular affair during which I landed only a few junior-leaguers. The second evening, June 27, resulted in a pair of local "sharks." Both were in the 17- to 18-inch range. I also lost a heavy trout.

Both of the large trout I landed took a size 8 black Woolly Bugger about an hour after dark. They struggled noisily in the darkness before I could land them. The third fish also ripped into the Woolly Bugger, and when I set the hook, it felt as if the fish were even larger than the first two. Unfortunately for me, after a struggle of only a few seconds, the hook pulled loose, and all I had left was a sad story. The stream went dead after that, and though I kept at it until 10:30, I could not provoke another strike.

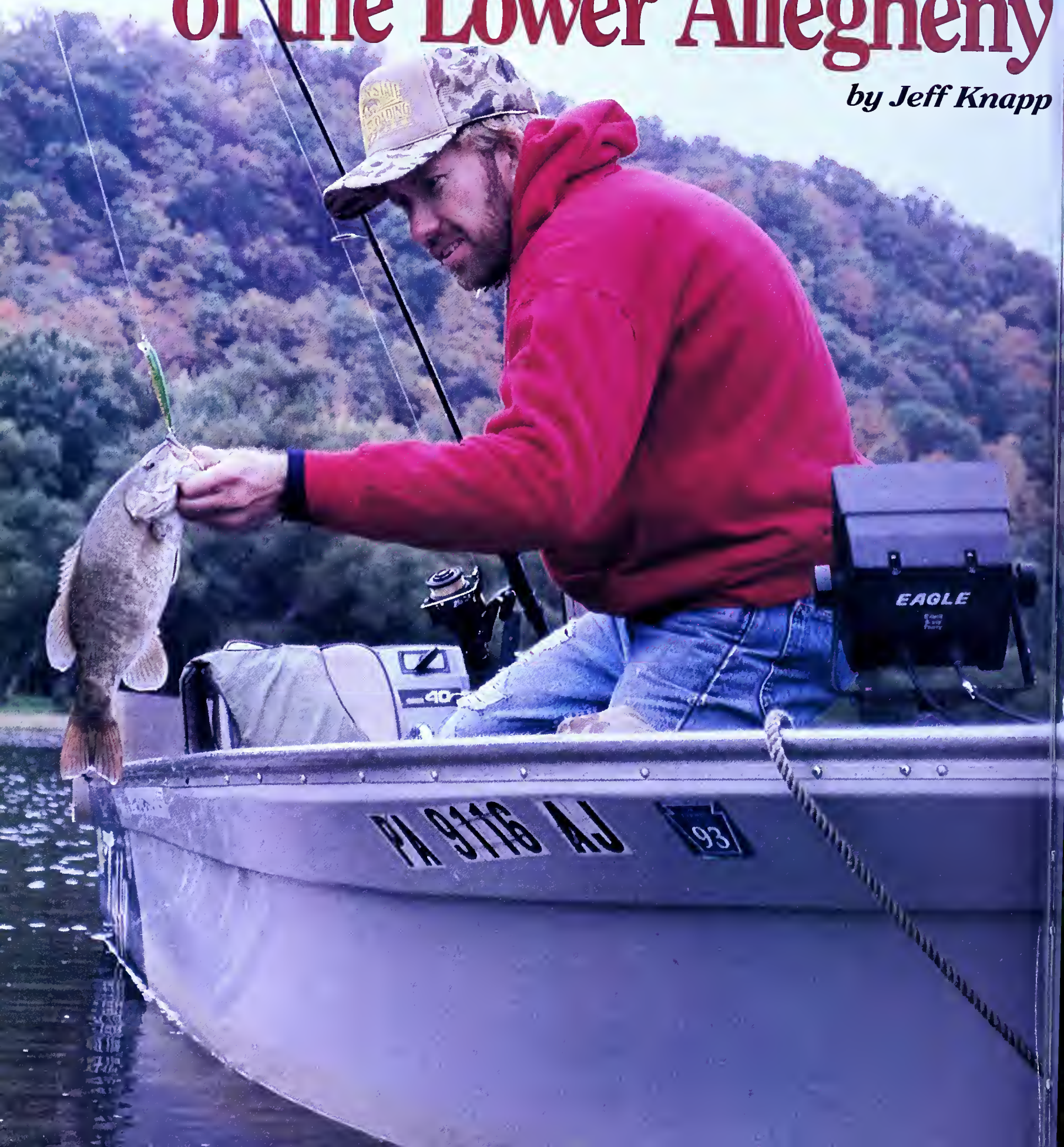
Wet fly fishing after dark is a fickle game. Some nights are exercises in futility, but on those magic nights when things go right, the rewards can be spectacular. I have landed many trout of 18 to 20 inches while fishing after dark. For this specialty fishing I have settled on the three flies I have noted, the Black Ant, the Leadwing Coachman and the Woolly Bugger, and one other, a size 8 Governor. Over the past seven or eight years I have done well with this arsenal of wet flies.

To be successful on the trout stream when June arrives, you must make some significant changes. June trout fishing is a game of the morning and the late evening, and you usually have to rely on your ability to catch trout that you do not actually see feeding. When you develop a set of effective tactics, I think you will find that trout fishing in June can be really exciting. Don't be afraid to give it a whirl.



Summertime Smallies of the Lower Allegheny

by Jeff Knapp



Emerald shiners broke the water's surface when the school of hungry smallmouth bass slashed into them. My minnow-shaped lure landed gently in the frenzy. On the first turn of the reel handle a wild two-pounder attacked it. As the battle ensued, several other nice smallies followed my fish—not huge smallmouth, but respectable ones in the 12- to 16-inch range. It was a late summer day on the lower Allegheny River, and that smallmouth was just one of 20 or so my partner and I racked up on the day.

Even though the free-flowing portion of the Allegheny is well-known for its smallmouth fishing, we were on the lower section of the river, a 72-mile stretch of navigable, impounded water. Though there is excellent bass fishing on the Allegheny during the summertime, anglers must compete for space with the great numbers of recreational boaters and water skiers.

Waters such as the lower Allegheny often demand fishing tactics tailored to the distracting activities of powerboating. One simple rule of thumb is to fish when the boats aren't out there, or at least when there are fewer on the water.

Often the worst-case scenario from a fishing standpoint is a beautiful, sunny weekend day. Not only is the weather not conducive to good fishing, but the level of powerboating is at its peak.

Savvy anglers gear their fishing to take

advantage of the best times. Some of the best fishing occurs when the day is damp and dreary. Not only are the fish more active, but the river is much more peaceful. But picking choice fishing weather is not often possible for the angler limited to fishing on weekends. It's usually a "take-what-you-get" situation.

Another excellent strategy, particularly with those who mush fish when river use is at its highest, is to concentrate one's efforts during the best fish activity times. The period of sunset until an hour or so after dark is a good time, as are the first few hours of daylight. These periods are often peak feeding times on any water, and they are especially productive on waters that serve as boating playgrounds, like the Allegheny River. It's a matter of being on the water before or after the fun-seekers.

Lures

Allegheny River smallmouths respond well to many lures. Topwater offerings are often most effective. Even though these lures are generally considered "fun lures," topwater offerings are often the best way to go. The calling power of noisy surface lures works very well on these fish. I always have a rod rigged with a topwater lure.

Stickbaits like the Zara Spook, and its smaller versions, the Pooch and Puppy, account for plenty of Allegheny smallies.

Propeller lures are the best all-around

photo- Jeff Knapp

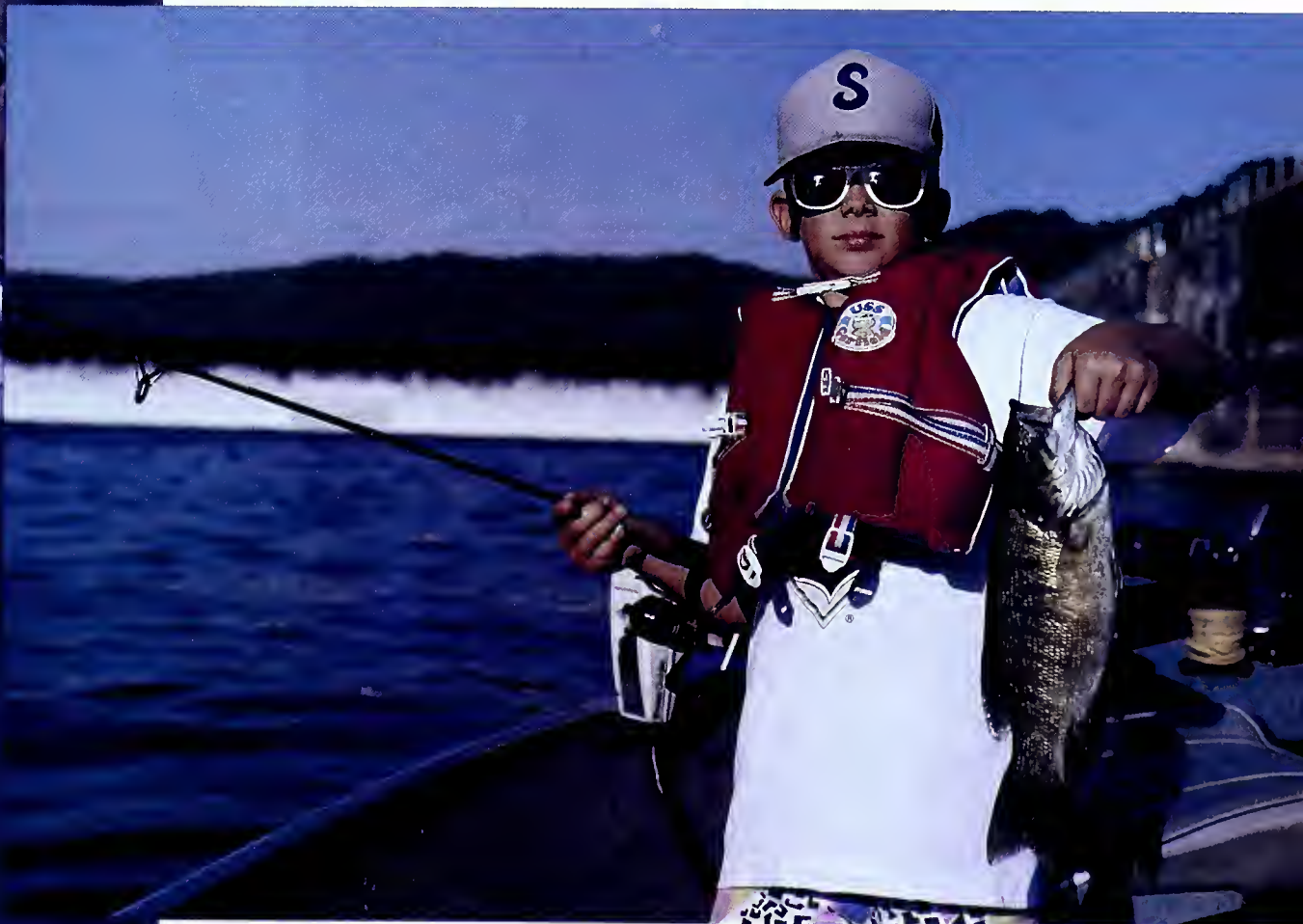
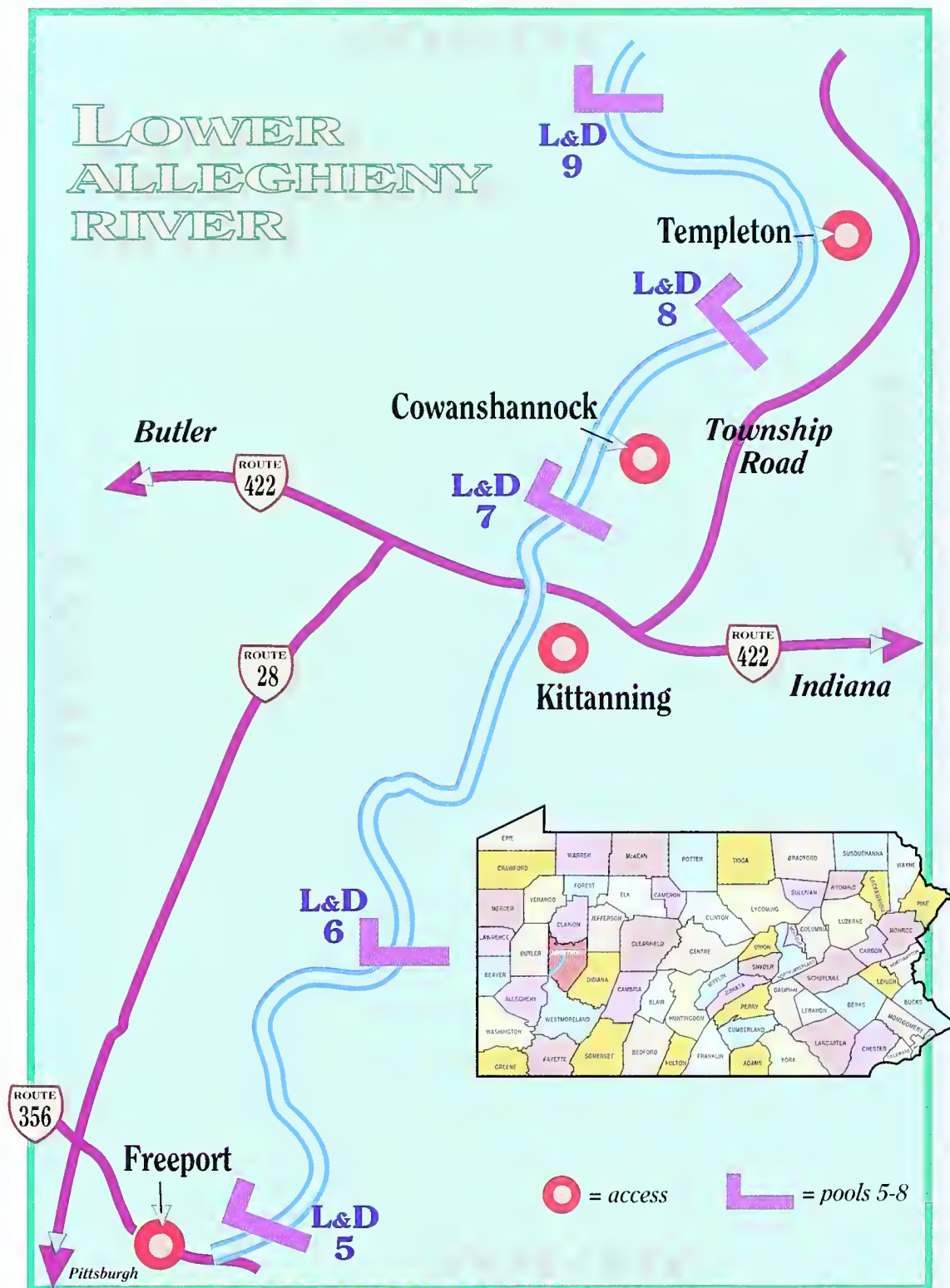


photo- Jeff Knapp

LOWER ALLEGHENY RIVER



map graphics- Ted Walke

topwater offerings. If I had to limit my choices to one single lure, it would be the Smithwick Devil's Horse. Other good prop lures include the Heddon Tiny Torpedo and Luhr-Jensen Nip-I-Dee. Black is a traditional topwater color and it is effective. Experience has shown that prop lures with an orange underside are also productive on the river. Safety pin-type buzz baits are another excellent choice.

Calling up fish with topwater lures is only one way to trigger them. Subsurface lures take their share of fish. Last year, one of my best lures was a Storm Jr. Thunderstick in the firetiger finish. Other minnow-shaped lures, like the original Rapala, are good.

At times, the smallmouth herd and feed on baitfish, mostly emerald shiners. These slim lures almost always provoke a strike from schooling smallies.

Sub-surface lure selection should also include a few small crankbaits, like two-inch Fat Raps and Storm Wiggle Warts. Perch and crawfish patterns are tops for the Raps. I've done well on the firetiger Wiggle Wart.

Faster-moving baits, like the ones I've described, are great for whacking active bass. But there are times when you have to get down, work slower and dig them out. Plastic-bodied jigs tipped with a fathead minnow are effective for this job.

Eighth-ounce and quarter-ounce Fuzz-

E-Grubs illustrate a basic presentation of this type. Or you can purchase jigheads separately and dress them with generic plastic bodies. The best colors are smoke, brown/orange, lime-green and chartreuse.

Locating fish

Naturally, catching bass means first finding bass. The navigational pools of the Allegheny are unique because they are miniature impoundments. They can best be described as hybrids, featuring characteristics of both rivers and lakes. And though the pools are part of a river, they can be harder to "read" than a free-flowing waterway, which displays identifiable riffles, runs and holes.

One of the keys to locating fish is recognizing fish-attracting habitat. Some of the best areas include extensive flats covered with submergent weeds, gravel bars that jut into the river, boulder-lined banks, small islands covered with water willows, and submerged rock reefs.

Much of the bottom of the Allegheny is comprised of river gravel. But in some areas, soft bottom exists and is often covered with aquatic vegetation such as coontail. The extent of the coontail depends on the water conditions of the year. During a stable summer—one lacking long periods of high water—the weed growth is greatest.

Smallmouth bass use these weedbeds. Because the weeds rarely reach the surface, such an area is tailor-made for a topwater lure. Those prop baits and buzz baits work well in this situation.

In select areas, the banks of the Allegheny are made up of large boulders, instead of the more common fist-sized cobble. The boulders generally extend into the water and provide excellent smallmouth habitat. Topwater lures worked on top of these large rocks often trigger bass hits. If not, dig them out with jig-and-minnow combos.

Small tributaries create rock bars that hook into the main river. They need not be large, either. A subtle bump in the shoreline can hold fish. A minnow-shaped lure is great for quickly fishing this type of water. When the bass are holding on these bars, they can be in very shallow water. I've caught fish in water so shallow, their dorsal fins were out of the water.

A typical small gravel bar usually produces only two or three fish. The others probably spook from all the commotion. However, when one bar has bass on it, chances are others do, too. You can put together a respectable catch by spot-hopping.

There are a few areas along the lower Allegheny that have small, rock-capped

islands. Many of these humps are only a few yards across. But they are covered with water willows, and the growth usually extends into the water. The smallies use this growth as an ambush spot. Again, it's a terrific place for topwater lures. Soft, precise casts are a must, ones that place the lure along the edge of this cover. The best islands are close to deep water.

Tailrace areas tend to attract anglers because they just look "fishy." The immediate tailrace, however, is off limits for safety reasons. During the summer, buoys mark the safety zones.

Even though the washout hole below the dam may hold fish, a structural element is often present in legal waters that tends to hold bass. The scouring action of the dam deposits gravel downstream, forming an underwater reef some distance downstream. In most cases the reefs top out at three or four feet of depth and may stretch well across the river. Such reefs are very productive areas, and they are a safe distance from the tailrace.

Pools

A "pool," defined by the U.S. Army Corps of Engineers, is the river section contained between dams. The numerical designation refers to the number of the downriver dam. For example, Pool 6 of the Allegheny is the section between dams 6 and 7.

All of the navigational pools of the Allegheny offer good summertime bass fishing, but I concentrate my fishing on pools 5 through 8.

Pool 5 is formed by Lock and Dam 5 near Schenley. A good shoreline on this pool is just downriver from Murphys Island, on the east bank. Large boulders extend into the water. There are two productive gravel bars, formed by tiny tributaries, along the east bank of the river, across from Murphys Island.

Moving upriver from Murphys Island toward the town of Clinton, you can find several other small rock bars along both shorelines. These are small points that often produce a fish or two. Above Clinton, Taylor Run enters the Allegheny on the east side. This run forms a huge gravel bar, which in turn creates a large, still hole below the bar. Smallmouth bass congregate around this bar, particularly at dawn. Soft-bottom flats rim the edge of the hole itself, and there's plenty of coontail.

Below Lock and Dam 6 there is a submerged reef. I've had good smallmouth action on this reef, particularly on the west edge where it drops into the channel. You can also cast to the end of the lock's ap-

proach wall. Many times bass suspend along this wall.

No public access is available along Pool 5. Fishing the area necessitates "locking through" either from Pool 4 or 6. The process is a simple one, though it requires having 75 feet of rope on board. The total length of Pool 5 is about six miles.

Pool 6 has the most diverse habitat found on the lower Allegheny River. It's one of the longer pools, stretching over nine miles. Three major island systems add to its character.

On the west bank you'll find a productive rocky shoreline across the river from Logansport. The bank gives way quickly to deep (15 to 25 feet) water and it's often necessary to drop a jig down to these fish to catch them. Two miles up the river is a series of islands, the largest of which is Ross Island. Extensive coontail-covered flats jut out from the north and west sides of the upper island. Just a bit above these islands is a series of submerged reefs. These islands are also normally covered with coontail vegetation. Both spots are large, and it takes some time to fish them thoroughly.

Moving up the river to the Manorville area, you find several key spots. A large gravel bar forms where East Run enters the river on the east bank. The Cogleys Island complex is found directly across from here. Numerous willow-covered humps are located along this stretch of river, ones that lend themselves to topwater presentations.

The entire Cogleys Island area is nearly a mile long. An angler can spend an entire day exploring all the nooks and crannies. A word of caution, though: Pay particular attention to depths. Many of the edges that lead from the main river into the backwaters are abrupt. Some 20 feet of water can quickly give way to prop-eating shallows. Some of the most productive water is located along this edge, so wading anglers also must be careful.

A large, shallow flat lies between the old Route 422 bridge in Kittanning and the new high level bridge, a distance of about a mile. Area 2 Fisheries Manager Ron Lee found many bass in this stretch while surveying the river several years ago. The flat is located on the east side of the river.

A few hundred yards below Dam 7 there is a small gravel island. A nice point extends from the front of the island into deep water. It's a good place for crankbaits and jigs.

The borough of Kittanning has a ramp just downriver from the old Route 422 bridge.

In Pool 7, several rocky weed-covered humps are above Lock and Dam 7. A large

gravel flat forms where Limestone Run enters the river along the west bank. It's an excellent topwater spot just before dark. Another rocky area worth trying is located along the east shoreline where Pine Creek enters along the east shore of the river.

You'll also find good smallmouth action working the shoreline below the hydro plant on Dam 8. Immediately across the river, a small hump rises near the lock. When the water is low, the rocks actually stick out of the water.

Pool 7 is about eight miles long. Both pools 7 and 8 take on a more rustic appearance, but that doesn't mean boating is less prevalent. Cabins are common along this stretch and most of the owners have boats. Weekend boat traffic is often worse here than downstream.

The Fish and Boat Commission has a public access at the mouth of Cowan-shannock Creek. The water is quite shallow during normal levels, so be careful.

Pool 8 is 10 miles long. Public access is available at the Fish and Boat Commission ramp in Templeton. Boulder banks line the east shore of the Allegheny both above and below the mouth of Mahoning Creek.

Try the gravel bar formed by Rattlesnake Run, on the west bank. Another good rocky shore is on the west bank of the river, across from Rimer. A good evening area is the gravelly shoreline on the west side of the Allegheny, from the hydroplant on Dam 9 down to the River Trails marina. Along this stretch last summer my partner Dave Keith broke off a smallie that had to go five pounds.

The portion of the Allegheny I've described is 32 miles long. There are many other productive places within this much river, but these are among the best. I list them somewhat reluctantly, and with the hope that fish caught here will be released.

River Charts



One of the handiest tools for fishing the lower Allegheny is a set of river charts. They are produced by the U.S. Army Corps of Engineers, and cover the entire 72 miles of navigable waters.

The tributaries and launch facilities outlined are located on these charts. They also make a wonderful journal on which to document choice fishing locations.

A listing for the Allegheny River charts, as well as all charts in the Pittsburgh District, is available by contacting: U.S. Army Corps of Engineers, William S. Moorhead Federal Building, Pittsburgh, PA 15222.—JK.

Choosing Line Color for Bass Fishing

by Andy Cline

A green slash cut across the bow of my boat. In the failing light of dusk, it looked as if someone had neatly slit the fabric of the universe with a scalpel, letting the light beyond show through.

The light rose from the water of a quiet pool. I followed the line from the water to the bank. There stood Phil.

My fishing partner this trip, Phil Heffler, stood on a large rock overlooking the pool, grinning broadly as I came around the bend.

"Hey, what kind of line is that?" I called out.

Phil giggled. "New stuff," he said.

At that moment the line twitched. Phil reared back, set the hook and hauled in a hefty channel catfish.

At camp later than evening I asked about the line—XT Solar from Berkley.

"Doesn't it scare the fish?" I asked.

Phil shook his head. "Nope. It attracts fish."

This was hard to swallow. So Phil gave me a spool of four-pound test and invited me to see for myself—to see if I could get a finicky smallmouth from a clear stream to bite.

The next day I caught two excellent smallmouth bass.

Whether or not these bass were attracted to the green line is hard to say. According to Dan Foote, director of chemical research for Berkley, the company created Solar merely to be visible to humans. The wild chartreuse color is one of the easiest for the human eye to register.

As for how fish like it, Foote couldn't say.

Past thinking holds that fish are put off by seeing line. And the more you can hide your line, the better—especially in clear water.

But in some situations, an angler must be able to see the line, to see the subtle twitches that mean a bass is biting.

This is why DuPont's clear/blue fluorescent lines have long been popular—noted for being easy to see above the water and not quite as bright below the water.

So which is it? Do fluorescent lines attract or scare fish? Can fish see line? Do they care? Is it smart to use a line that's hard for fish to see?

Well, the answer to all these questions is yes.

Consequently, line manufacturers have been producing a plethora of line colors lately. Recent additions include aqua-fluorescent and moss-green for DuPont's MagaThin and a camo line from Triple Fish.

Some biologists I've talked to say bass can see line. It's a matter of whether or not they accept it in their environment.

Close enough

When bass are close enough to see your lure, they are close enough to see your line, too. And some experts believe bass can make the connection between the line and the lure. Whether bass are put off by this connection depends on the mood of the fish and how much line they see.

In most water, the range of sight of a bass varies from six inches to two feet. That means they see varying lengths of line. In murky water, they may only see the knot and a few inches of line—hardly anything to get worked up about. In clear water, they may see from the knot to your hands on the reel.

Because of this relationship between water clarity and the length of line bass can see, anglers have long used this simple formula for choosing line: Use clear line as an all-around choice, use bright lines in stained water and dull, smokey colors in clear water.

Contrary to what I thought, the smallmouth on a clear creek accepted the intrusion of a bright green line. But we've all been on lakes, usually with clear water, where using a colored line meant catching no fish.

So what's the deal?

Perfect matches

Well, the type of line you choose should not only match the water conditions but should also match the experience of the fish.

Heavily pressured fish shy away from bright lines. Bright lines attract fish from waters with little fishing pressure.

This doesn't prove you can catch more fish with one kind of line or another. Bass simply make a choice when given the opportunity.

Bass have excellent eyes and see a range of color similar to humans. Anything they see is significant. The logical conclusion is to use a clear line in most situations.

Wrong.

A round, clear line acts as a lens in the water—similar to a fiber-optic cable. Clear line gathers light and transmits it to the water. Thus, it glows slightly.

I prefer a dull, smokey color for an all-around line. Manufacturers make them in gray, green and brown. Even though bass can see these lines, they can't see them for very great distances in most water.

When you want your line to be "hard to see" (there's no such thing as a line fish can't see), match the line color to the water color. A good all-around choice is brown. The red tones disappear quickly in dark water.

In today's highly competitive fishing environment, where an increasing number of tournament and weekend anglers vie for a finite number of fish and fishable acres, it's important to have an edge. There's no use throwing the right lure to the right spot if your line is scaring fish.

But even though using smokey lines may be useful for stealth, they are not useful in all situations.

For example, there's nothing wrong with using a fluorescent line when fishing at night. Under a black light, the line glows but disappears quickly underwater.

And when worm or jig fishing in heavy cover, a fluorescent line gives you the jump on fish—it lets you see a strike even before you feel it. In these situations, the presentation is often vertical. The bass doesn't see much of the line, anyway.

In stained or muddy water, bass can't see much of the line whether



photo- Dan Martin

fluorescent or not. Here again, the bright lines let you easily see strikes.

Fluorescent lines may be an attractor in low-pressure waters. This, I believe, is why the smallmouth—usually a skittish fish—bit my lures on my fishing trip with Phil. The section of stream we fished was far from public access.

Finally, the bright lines are good for slack-line fishing, when seeing your line is the only way to detect a strike.

Just when you thought sportsmen had put camo patterns on everything possible, along comes a camo fishing line. Don't snicker. It makes sense.

The idea is this: Fish see only a portion of the line in most water. If you can make the portion they see smaller, you'll spook fewer fish.

Remember that it's difficult—almost impossible—to make line completely invisible to bass. You merely want to cut down the amount they see and connect with the lure. A camo pattern, by changing color, tries to affect this break.

Triple Fish developed a camo line with four colors that change every four to six inches. One of the colors is a fluorescent blue, thus making it useful for line-watching.

Line is the most important link between you and the fish. Just as you wouldn't buy a bargain-basement line to save pennies, you shouldn't stick to one color to save pennies, either.



Line **COLOR** Choices

- **Clear lines.** Clear lines have become the all-around choice for most anglers. These lines are a happy medium between dull-colored lines hard for anglers and fish to see and fluorescent lines easy for anglers and fish to see. Contrary to popular belief, these lines are not invisible in clear water.

- **Colored lines.** Dull, smokey colors such as green, brown and blue are the best choice when fish are skittish. Match the color of line to the color of water. These lines are the worst choice when line-watching.

- **Camo lines.** Segmenting line into different colors may help cut down the amount of line a bass sees on your lure—useful when fish are skittish. These lines may become the new all-around choice.

- **Fluorescent lines.** Some anglers still use fluorescent lines for all-around fishing. That's not a bad choice. But bass sometimes react negatively. Choose fluorescent line when you fish at night, in muddy water, when fishing heavy cover or when slack-line fishing. Fluorescent lines may also act as an attractant in waters with low fishing pressure.—AC

The Ichthyophobe and the Angler— Can Their Love Survive?

by Lynn Ernst

I should have known what I was getting into the first night we met. As is all too often the case, the heart won out over the mind, and I was hooked—hooked by the worst species known to womankind—a fisherman.

Bill and I met as many college couples do, at a fraternity party in a not-so-posh basement of a dilapidated fraternity house. Having kept eye contact with each other from across the room for some time, Bill shyly walked my way, as my heart raced wildly. Quietly, he introduced himself, and I did the same. However, never having been blessed with the gift of gab, an uncomfortable silence quickly fell on us. Yet soon enough, Bill asked the fateful question that still haunts me today. "So," he inquired, "what do you think of fishing?"

Gulp. I could manage questions like, "what's your major?" or "where's your hometown?", but I could not manage, "so, what do you think of fishing?"

Please, fate, I thought, don't be dealing me this cruel hand. Let him be a golfer. Let him be a hunter. For heaven's sake, please don't let him be a fisherman! How could I confess to this blue-eyed wonder that I suffered from a severe case of ichthyophobia (fear of fish). This was a time for drastic measures, so I did what any respectable woman would do after meeting her dream man and wanting to impress him. I lied. "It's OK," I stuttered.

Innocently he continued, "Do you like to go fishing?"

"Yeah," I answered, feigning enthusiasm. At this point, I considered breaking down and telling the truth. But really, how does one explain this phobia to an avid fisherman? For those fishermen out there who find this type of phobia ludicrous if not downright implausible, let me try and explain the fear and how it develops.

Ichthyophobia, while not studied extensively to my knowledge, is not genetic. Instead, I believe it is brought

on by traumatic childhood experiences with fish. As far back as I can remember, on top of my bedroom dresser there was always a fishbowl with a goldfish or two in it. Well, let's just say there was always a fishbowl there. Half the time the goldfish would be flip-flopping around half dead on my bedroom floor. Having stepped on too many goldfish in bare feet and having found too many fish won at the county fair belly up the next day, I was well on my way to developing ichthyophobia.

Furthering the progress of this phobia was the time I couldn't find Rainbow, one of my goldfish. After searching in vain for days, I finally came to the comfort-

conclusion that the bigger goldfish must have eaten the littler one. After all, who was I to question Mother Nature's food chain? Looking at it this way, I could somehow handle Rainbow's untimely demise. What I could not handle was finding Rainbow a month later in the bottom of one of my dresser drawers, as flat as a pancake and blackened with decay.

However, if I were to pinpoint any one incident that truly added to my already growing fear of fish, it would be the trip to Quebec, Canada, with my high school French club. After a day spent sightseeing, our group decided to stop at a pleasant yet inexpensive restaurant. Before entering, we all decided we didn't want to look like tourists, so we would speak only French to the waiters. I was hungry and my knowledge of French was limited, so I

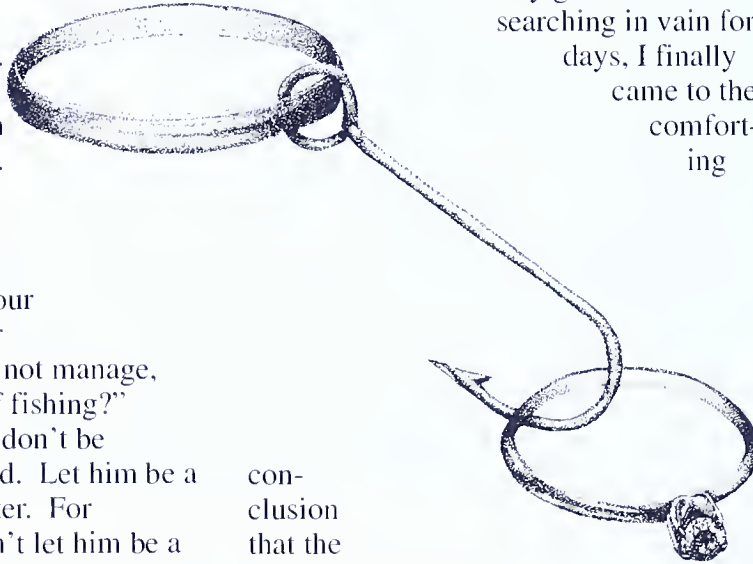
ordered the only thing I could pronounce on the menu—*la truite de l'arc-en-ciel*, better known as rainbow trout.

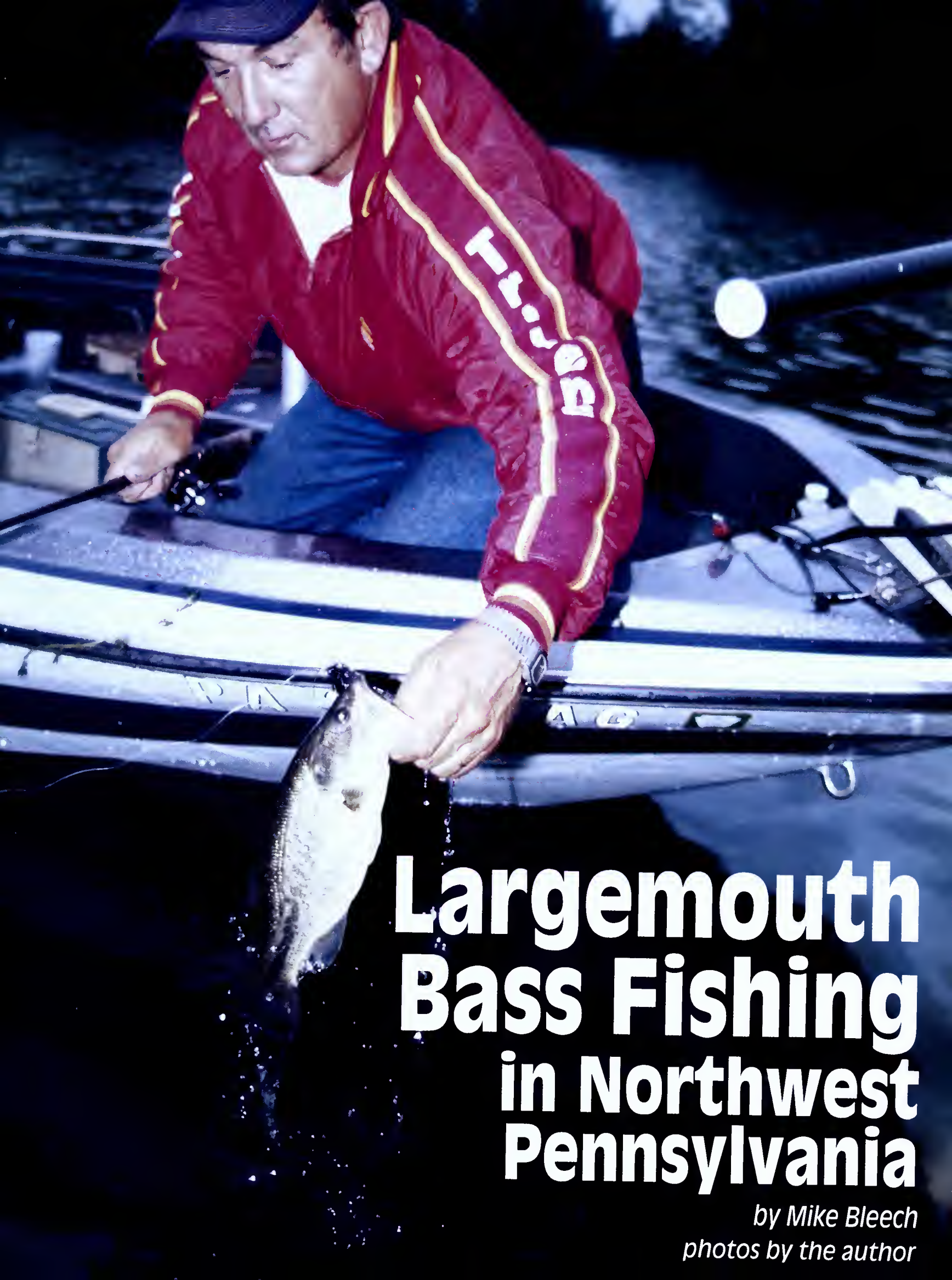
Bad move. Thinking I would get a nicely garnished piece of fish, the waiter presented me with a fish—head, eyes and tail still intact. At that point, a full-blown case of ichthyophobia was established.

Back to Bronzeback Bill (yes, that is actually his CB handle). Since that fateful day six years ago, Bill and I have learned a lot about each other. He knows that I was born on June 5 and am a Gemini, sign of the twins. I now know he was born on February 28 and is a Pisces, sign of the fish. Surprise, surprise. Over the years Bill and I have learned the art of compromise and understanding. For example, when I want to go for a romantic moonlit stroll, Bill agrees to go for the walk if he can search for nightcrawlers. And when I want to go on a scenic country drive, Bill once again compromises, willing to limit the number of pit stops he makes to check the water level and clarity of rivers and streams along our journey.

While Bill has learned the art of compromise, I've learned the art of understanding. I've learned to understand that when Bill says I have "catfish eyes," it's a compliment. On birthdays, I've also come to understand that when the doorbell rings, the odds are I will not see the florist's delivery man presenting me with a dozen roses. Instead, Bill will stand before me, grinning ear to ear, with something approximately six feet high in one hand and a box in the other. "Oh Bill, my own fishing pole and tackle box. That's great!" One thing I will never understand is why Bill is so proud of me for picking up a hellgrammite. Face it, fellow anglers, they're gross.

The good news is that I have, for the most part, gotten over my ichthyophobia. The bad part is that I am now a compulsive liar. Have I learned to love fishing? Yes. Have I learned how to love a fisherman? Yes. After all, any woman knows it only takes a little bit of compromise and understanding.





Largemouth Bass Fishing in Northwest Pennsylvania

*by Mike Bleech
photos by the author*

Not long ago in geological time, about 10,000 years, great glaciers scoured the northwest Pennsylvania landscape. As the last ice age ended the glaciers receded, leaving behind gently rolling hills, thick topsoil and numerous small lakes and marshes that would eventually become excellent largemouth bass habitat. This is a close-up look at the largemouth bass fishing of our northwest corner, and how you can take advantage of it.

This portion of the state is the northwest region of the Fish and Boat Commission, which includes Warren, Erie, Crawford, Forest, Venango, Mercer, Clarion and Lawrence counties. However, there isn't a lot of largemouth bass water in the mountainous eastern part of this region. Look mainly at the area a bit west of the Allegheny River, and north of Interstate 80, in Erie, Crawford and Mercer counties. The largemouth bass waters include both natural glacial lakes and manmade reservoirs. The reservoirs typically enlarge ponds and marshes of glacial origin.

Fishing is serious stuff in this corner of the state, so you can find ample services and facilities to accommodate anglers. Bait and tackle shops are located along access routes to most of the popular waters.

Special boating regulations apply to most of the better largemouth bass waters in this area. It's easy to understand why the typical bass boat owned by local anglers is powered by a 9.9-horsepower motor. There is even one waterway with a six-horsepower limit, and waters limited to electric motors. You certainly do not need a high-horsepower bass boat to enjoy quality largemouth bass fishing here.

If you visit northwest Pennsylvania, you can stay a long time and still fish a new body of water every day.

Crawford County

The largest natural lake in the state, at 928 acres, is Conneaut Lake. It is also one of the busiest during the tourist season. It is located about five miles west of Meadville. The town of Conneaut Lake is at the southern end, near the outlet. A Fish and Boat

Commission access is at the north end of the lake, on the western shore off Route 618.

Conneaut is a deep lake, more than 50 feet in some places. Structure fishermen love this lake because the bottom is a series of interesting dropoffs, points, holes and humps. Weed beds cover most of the shallow water, though it is thinned or broken in some places by a rocky bottom.

One of the keys to successful largemouth fishing here is avoiding the heaviest pleasure boating traffic. Though the bass have doubtlessly adapted to the commotion, it is hard to concentrate on fishing while water skiers and speedboaters buzz around. The usual way to fish around the pleasure boaters is to fish in the evening, but an even better way is to set the alarm clock very early and get on the water an hour or two before sun-up.

Try topwater lures for early morning fishing. During the day, flip Texas-rigged plastic worms or Arkie jigs tipped with pork in the weedbeds, or along the outer edges of the weed beds. Try to establish a pattern, whether the bass are along the weed bed edges or in the beds.

One of the favorite times for serious anglers to fish Conneaut Lake is during fall, after the pleasure boaters have abandoned the lake for another season. The best of this fishing begins late in September and continues through November. Try large live minnows along the weed edges or in open pockets in the weed beds. Soft-plastic jig bodies on lead heads might be the most effective artificial lures at this time.

Tamarack Lake is the favorite bass water for many local anglers, even though it sometimes gets choked with weeds. Six-pounders are occasionally caught, so use heavy tackle to haul them out of the dense weeds.

This Fish and Boat Commission lake is located just two miles southeast of Meadville. With a surface area of 562 acres, it provides a lot of area to work because boats are limited to electric motors.



Flipping Texas-rigged plastic worms into open pockets in the weed beds is the main bass fishing pattern. Favorite colors include grape and red shad. Weedless topwater "slop" lures—like the Moss Boss, Snag-Proof Mouse, Skitter Buzz and the like—provide more excitement when the bass are looking up.

Woodcock Lake is a 500-acre Corps of Engineers impoundment a few miles east of Saegertown. Its maximum depth is 44 feet. A boat ramp is located on the south side of the lake, in Colonel Crawford Park. Boat motors are limited to 10 horsepower.

Pitch deep-diving crankbaits against the rip rap at the dam, though you will catch more smallmouths here than largemouths. Work spinnerbaits over the thick weed beds and a stump flat near the swimming beach. Try jigs along the sunken creek channel.

Early season is the best time for bass fishing at Hartstown Marsh. You can get to it by way of an abandoned railroad right of way. Most folks prefer to fish it from a canoe.

This is another of those places where you might tie into a six-pounder now and again, particularly in a wide area deep in the swamp.

The water depth in most of this big swamp is less than five feet. Part of it, though, was a section of the old Erie Canal (not the famous one that runs through New York), and depths here dip to at least eight feet. Fish spinnerbaits over the vegetation, and close to brush, stumps and standing dead wood. Try jigs along the edges of the canal.

Pitch plastic worms under docks and along the edges of weed patches in Canadohta Lake. Get on the lake before most anglers' alarm clocks go off, and dimple the calm water with surface poppers and you might catch bass that would amaze the other anglers on this highly developed little lake.

This 169-acre lake is in the quiet northeast corner of Crawford County. Boat motors are limited to 10 horsepower.

Clear Lake, locally known as Sparty Pond, is a shallow 117-acre impoundment at the village of Spartansburg. Though weed-choked, it holds some very nice largemouths. Northern pike seem to dominate the few open areas of the lake, and largemouth bass are generally farther back in the slop. Topwater slop lures are made to order for this lake. Cartop boats can be launched near the dam. Though motors are not restricted, they are not practical here, and are not used by general agreement among the locals.

At tiny Sugar Lake, just 90 surface acres, boats are limited to six-horsepower motors. Flip plastic worms or Arkie jigs in lily pads around the perimeter of the lake, or in the outlet.

Visiting bass anglers might be tempted to aim for big Pymatuning Reservoir, but most local anglers go elsewhere. It's not that this 13,500-acre impoundment doesn't hold largemouths, but you might have to look to find just a few. If you must, start in the northern end of the lake, casting spinnerbaits around stumps.

Pennsylvania and Ohio have reciprocal fishing rules at Pymatuning Reservoir. Bass fishing is allowed year-round. The minimum size is 12 inches and the daily creel limit is eight. The best largemouth fishing is generally in May.

Erie County

Edinboro Lake, at the town of Edinboro in southcentral Erie County, is noted as a big-bass lake. The chance of hooking a largemouth weighing more than four pounds is quite good. It is a natural lake, 240 acres, somewhat enlarged by a small dam, like many of the natural lakes in the region. Access includes a public ramp on the western shore.

This is basically a dish pan-shaped lake, with a maximum depth of about 30 feet just southwest of the center of the lake. The steepest



shoreline is along Green Point, which protrudes into the northeast side. Dense weed beds cover much of the shallows, particularly in the northern part of the lake. There is a stump flat in the wide bay just to the right of Curtze Bay, looking at it from the lake.

Flip back Arkie jigs tipped with pork frogs into open pockets in the weed beds at the north end of the lake. Double-blade spinnerbaits, white or chartreuse, are good over the stump flat and in the outlet canal. When the fishing is slow, try lead head jigs and three-inch grubs in the outlet canal.

Though situated along Erie, the third largest city in the state, Presque Isle Bay and ponds in the Presque Isle peninsula, which are popularly called the lagoons, provide good largemouth bass fishing. Bass fishing pressure is heavy here.

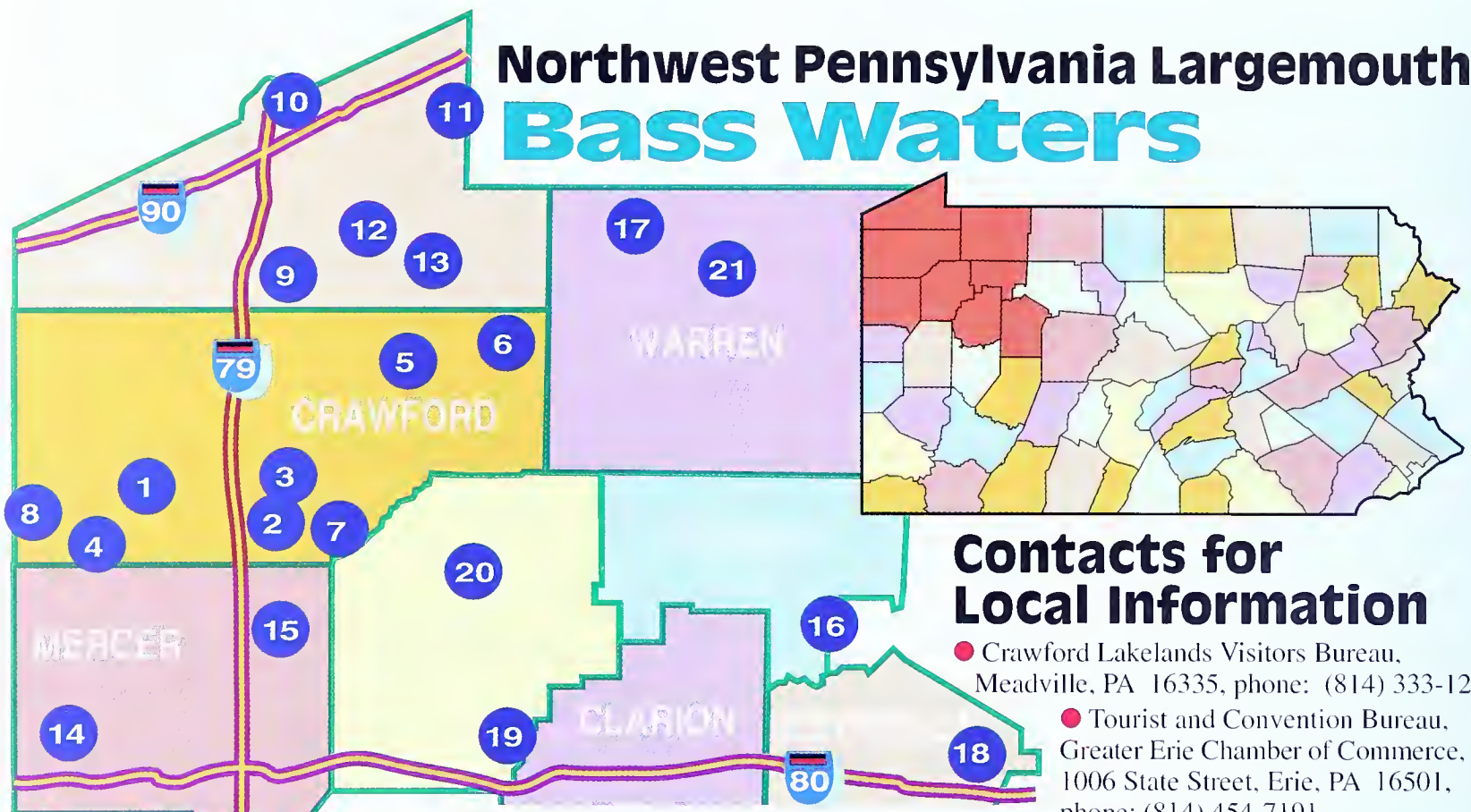
Boat access facilities are scattered around the bay. The peninsula comprises Presque Isle State Park, the most popular state park in Pennsylvania. Stop in the park administration building for a map showing the lagoons. The mainland side is the city of Erie.

Most of the largemouths in the bay are in the shallower western end. Big weed beds cover most of this area. Fish spinnerbaits and floating minnow lures over the tops of the weeds. Frequent winds can make bass fishing here difficult.

The lagoons are shallow and weedy. Small boats or canoes are best suited to this area, but bass boats can reach most of the water, particularly in Marina Bay and Horseshoe Pond. This is a good place to retreat when the water is too rough to fish in the bay. Try spinnerbaits tipped with white Ripple Rind early in the season, and topwater slop lures later during summer when most of the surface is covered with thick weeds.

Some smaller waters worth a try in Erie County are Eaton Reservoir, in the northeast corner, Lake LeBeouf, at Waterford,

Northwest Pennsylvania Largemouth Bass Waters



Contacts for Local Information

- Crawford Lakelands Visitors Bureau, Meadville, PA 16335, phone: (814) 333-1258.
- Tourist and Convention Bureau, Greater Erie Chamber of Commerce, 1006 State Street, Erie, PA 16501, phone: (814) 454-7191.
- Mercer County Tourist Promotion Agency, One West State Street, Sharon, PA 16146, phone: (412) 981-5880.—MB.

- | | | | |
|-----------------------|----------------------------------|--------------------------|---------------------------|
| 1. Conneaut Lake | 7. Sugar Lake | 12. Lake LeBoeuf | 18. Kyle Lake |
| 2. Tamarack Lake | 8. Pymatuning Reservoir | 13. Union City Reservoir | 19. Kahle Lake |
| 3. Woodcock Reservoir | 9. Edinboro Lake | 14. Shenango Lake | 20. Justus Lake |
| 4. Hartstown Marsh | 10. Presque Isle Bay and Lagoons | 15. Lake Wilhelm | 21. Chandlers Valley Pond |
| 5. Canadohta Lake | 11. Eaton Reservoir | 16. Buzzard Swamp | |
| 6. Clear Lake | | 17. Bear Lake | |

map graphics—Ted Walke

and Union City Reservoir. Motors are unlimited at Lake LeBoeuf, but the entire lake is a no-wake zone. Only electric motors are allowed at Eaton Reservoir, and no power is allowed at Union City Reservoir.

Mercer County

Shenango Reservoir largemouths can be tricky, but their average size makes the challenge worthwhile. This 3,560-acre manmade lake was created by a dam on the Shenango River, near Sharpsville. It is “Y”-shaped, with the deepest water, about 40 feet, in the bottom of the “Y” near the dam. The western arm is fed by Pymatuning Creek. A well-marked electric-motors-only zone makes the upper end of this arm a good place to escape the fast lane. The eastern arm is fed by the Shenango River.

Wood, the predominant cover, either standing, stumps or fallen timber, is a key to largemouth bass action here. In the deeper central portion of the lake, look for fallen timber along steep, timbered shorelines. Stump flats are located near the shallower, upper end of the arms, and along the southern side of the Shenango River arm.

Topwater lures can be hot on calm mornings. Spinnerbaits are well-suited to working tight to the wood cover. Where the edges of the sunken creek channel are within reach, fan cast with deep-diving crankbaits that imitate shad. Use plastic worms right in the wood cover when the bass are not aggressive.

Lake Wilhelm is in northeast Mercer County, split by Interstate 79. Maurice K. Goddard State Park surrounds the lake east of I-79, State Game Land 270 surrounds the lake. Avoid a propagation area in the center of the state game land. Boat motors are limited to 10 horsepower. Fish shallow cover for largemouths.

Warren, Forest, Venango, Clarion, Jefferson counties

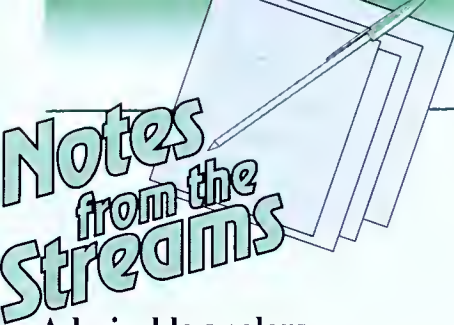
Moving away from the northwestern border counties, the land becomes more rugged. Swift trout streams are the predominant fish habitat, but tucked between the steep hills are a few largemouth gems.

Buzzard Swamp, in the southeast corner of Forest County a few miles east of Marienville, might be the best in the region, at least for trophy largemouths. A few six-pounders are caught each year, though fishing pressure is starting to take its toll. The main reason the bass fishing is so good here is that it requires a walk of more than a mile to reach the largest pond in this Game Commission propagation area. You can pack in a small boat, but no motors are allowed.

The maximum depth in the sunken creek channel is more than 10 feet. Numerous standing dead trees in the central part of the lake provide excellent bass cover. Drop a plastic worm or jig-and-pig alongside these trees. Retrieve slop lures over shallow weeds, and white spinnerbaits along the weed edges.

Bear Lake, in northwest Warren County, is an interesting little glacial lake. Local legend has it bottomless, a result of its very soft bottom. Just 20 acres, you can fish it thoroughly in an evening with a cartop boat. Blue plastic worms get the interest of bass that hide in weeds and rotting wood.

Some other small bass waters worth a try in this region are Kyle Lake, a dandy, just north of I-80 in eastern Jefferson County; Kahle Lake, on the Clarion-Jefferson County border; Justus Lake, northwest of Oil City in Venango County; and in Warren County, Chandlers Valley Pond. Note special boating regulations on these small waters.



Admirable anglers

While electrofishing to estimate fish populations on Tulpehocken Creek, I noticed about 15 trout fishermen doing quite well. The trout were eagerly biting flies. As my survey team approached the fishermen, these anglers pleasantly backed up and allowed us to pass. After we finished surveying this part of the Tulpehocken, the anglers returned to their fishing, where the trout weren't disturbed at all. The anglers went right back to catching them!—*Mike Kaufmann, Area 6 Fisheries Manager, Revere, PA.*

Biologist aide saves a life

Last January, fisheries biologist aide Steve Reeser was collecting angler use-and-harvest information on Rose Valley Lake, Lycoming County. The weather earlier in the week had left much of the lake ice-free, but a cold front had moved through and covered the entire lake surface with a thin layer of ice.

While working on the opposite shore, Steve noticed that some individuals were setting up ice boats. Before anyone could warn them of unsafe conditions, one man had set sail and quickly he and his boat plunged through the ice. Steve, along with the help of two anglers, led the mission that saved the man's life.—*Tom Greene, Coldwater Unit Leader.*

Chase

Fish Commission Regional Manager Thomas Qualters, WCO Bud Flyte, Assistant Regional Supervisor Tony Murawski and DWCO Jim Fisher assisted in a three-mile, two-hour pursuit and apprehension of James Gary near Somerset. After apprehension, state police and Somerset police informed Qualters and Flyte that Gary had numerous felony and misdemeanor charges pending and several bench warrants had been issued for his arrest.

Last May 30, Qualters and Flyte approached a car parked near Somerset Lake. They noticed a man leaving the car and walking through a field toward a wooded area. A woman in the car told both officers that they were fishing, but because the officers couldn't locate any fishing equipment, they approached the man heading into the woods. Officer Flyte asked to see identification. The man said, "later," and fled into the woods.

For about 40 minutes, Qualters, Flyte, Murawski and Fisher searched the lake area and Route 601. They pursued the man across Route 281 and onto the Pennsylvania Turnpike. Gary stopped on the Turnpike, waving a 10-inch metal pipe at Qualters, demanding that the state police stay away from him. Qualters met his demand under the condition that Gary drop the pipe. Gary then dropped the pipe and cooperated with State Trooper Harry Wilcox, Corporal Thomas Klis and Qualters.

During questioning, Gary lied about his name, stating his brother's name, and he provided other false information. His charges included resisting arrest, false reports to law enforcement authorities, recklessly endangering another person, disorderly conduct and simple assault. Gary was remanded to the county jail waiting for arraignment by District Justice John Barkman with bail set at \$100,000.—*Ann Kreisler.*

Huntingdon remembered

I was looking over the cover photographs on the December 1991 *Pennsylvania Angler* and they brought back some wonderful memories. The 1937 *Angler* cover reminded me of my younger brother, a good friend and me at our fishing hole on Standing Stone Creek, Huntingdon County. My dad took us there often and we enjoyed catching trout, bass, suckers and fallfish. My first trout fishing experience was a trip to Whipple Dam State Park on opening day in 1945.

The 1947 *Angler* cover reminded me of our backyard on Washington Street in Huntingdon. When it was time for the garden to be spaded, dad would use some "angler's psychology" on me and my brother. "You boys spade the garden today and collect all the worms, and I'll take you fishing on Saturday," he'd say. You never saw two boys work harder.

Thanks for the December *Angler*. I enjoyed it.—*Retired WCO Bernie Ambrose.*

Go west, young man?

Trout anglers from the East generally perceive western trout streams as a trout angler's mecca. Historically, popular angling literature has glorified rivers in Montana, Idaho and other western locations. A recent telephone conversation with a Pennsylvania trout angler revealed that Pennsylvania also provides superb trout angling.

The angler and his friend had planned a western trout fishing vacation, but after fishing several Pennsylvania wild trout streams last year, they decided it would be

hard to equal their success on any western river. The western fishing trip was canceled. The caller said, "Wild trout fishing in Pennsylvania is outstanding, and it would be difficult to go out west and catch more trout."

Comments like these from serious, dedicated anglers are not only appreciated, but indicate that Operation FUTURE and trout management in Pennsylvania are succeeding.—*Thomas Shervinskie, Fisheries Technician, Somerset, PA.*

Distinguished visitor

During a sunny afternoon last August I was at my desk working on a musky stocking schedule when I received a call from Hatch House 2. Gunner Jensen said that there was a bunch of people touring the hatchery and one of them looked just like Governor Casey. I kidded him a bit about VIP recognition, told him that there was a guy in here yesterday that looked just like President Bush and went back to working on my stocking schedule.

A while later I heard some people in the hall and went out to take a look. There at the fountain, holding up one of his grandchildren to get a drink, was the "real" Bob Casey. I said something like "pardon me sir, but you have a vaguely familiar face," and introduced myself. We walked out to the new viewing tank where I was introduced to Mrs. Casey and the family.

After discussing the merits of various fish in the tank and fishing in general, the grandchildren decided they were hungry, so off they went.

He wasn't the governor that day—just a guy on vacation, surrounded by his family, enjoying a walk around a hatchery.—*Engene Rozaleski, Pleasant Mount Fish Culture Station.*

Die-hard angler

The same person was apprehended and prosecuted twice last spring for fishing in approved trout waters during the closed season. He was prosecuted as a repeat offender. In each case, however, he failed to appear before the district court and warrants were issued for his arrest. The first two were successfully served; the third was pending with a copy at the local police department of the borough in which he resided. I was recently notified by the police that he was in custody on an unrelated charge of retail theft. He was caught shoplifting fishing tackle at a local department store.—*Kerry L. Messerle, Manager, Northeast Law Enforcement Region.*

They will be remembered

At a meeting last September I had the honor to be in the company of three fish culture station managers who had a total of 108 years of service with the Fish Commission. While driving home, I overheard one of these managers say, "When we retire in December, we probably will not be remembered." As I continued driving I thought, this is sad. He believes after all his years of service that he or any person who has hit that golden gate of retirement could easily be forgotten. This is where my story of why I won't forget begins.

I was hired by the Fish Commission in 1969 when I was 17 years old. My first contact with the Commission was Shyrl Hood, chief of Cool/Warmwater Fish Production at the Linesville Fish Culture Station in Crawford County. I did not know anything about raising fish or what the Fish Commission was all about, but I was willing to learn. Tom Clark, current manager of the Corry and Union City hatcheries, and Shyrl Hood took on the task of teaching this green-horn kid his job, and boy, did they have a lot of patience.

Just about the time I was getting a handle on the do's and don'ts of this job, Uncle Sam called. After two years I returned to the Fish Commission only to be transferred to the Benner Spring Fish Culture Station in Centre County. That didn't seem too bad. I still remembered the do's and don'ts from Linesville, but what I didn't know was that Benner Spring is a trout production hatchery.

So then it was Bill Kennedy's turn to take this green-horn kid and mold a fish culturist out of him. Just as I was about to get a handle on this trout-rearing situation, along came the renovation of Benner Spring. Where did I go then? That's right—construction. I was trained to build concrete raceways and rub walls.

Then came stocking season and I was transferred to the Bellefonte Fish Culture Station to work for Bill Hoover. Bill became another teacher and added some more knowledge to my field of fish culture.

After a few stocking seasons with Bill, I was transferred to the Pleasant Gap Fish Culture Station to work for John Bair. I thought the training was over, but was I wrong. John Bair went to work teaching me more do's and don'ts to add to my book of fish culture.

Well, gentlemen, you not only were good teachers, supervisors and masters of your field, but also through the years we became friends. So now as I walk in your footsteps with the knowledge, understanding and the meaning of this great organization called the Pennsylvania Fish & Boat Commission that you've given me, I can only hope that someday I too can pass them along to a green-horn kid who is willing to learn.

It has been a pleasure to know you, work with you and work for you. Thank you Shyrl Hood, Bill Hoover and John Bair. And yes, you will be remembered. Enjoy your retirement. You deserve it.—Kenneth L. Slogaski, Manager, Tylersville Fish Culture Station.

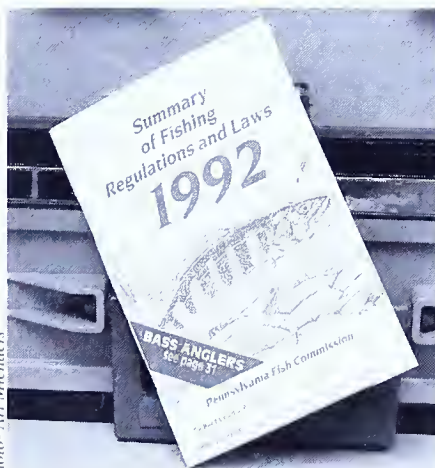
photo- Art Michaels



WCOs met a few months ago for a 25th reunion of the WCO class of 1967. All the officers were still on the job. The WCOs are (kneeling left to right) Claude Neifert, Bill Mantzell, Jay Johnston, John Weaver, (standing left to right) Frank Kami, Tony Murawski, Ammon Ziegenfus, George Jones, Paul Swanson, Joe Houck, and Don Parrish. WCO Gene Scobel could not attend the reunion and isn't pictured in the recent photograph. The WCOs appear in the same order in the 1967 class photograph below.



photo- Art Michaels



The Summary of Fishing Regulations and Laws 1992 is 60 pages of vital information. When you buy your license, be sure to write the license number and the place of purchase on the front of the summary. If you lose your license, this information makes obtaining a replacement easy. You can also get a copy of the summary by sending a business-sized self-addressed, stamped envelope with your request to: Publications Section, Dept. F, PA Fish & Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673.

Fatal Boat Prank

Last May, 17-year-old Mark Yates, from Bellevue, and 17-year-old Melissa Folmer, from McCandless, swam into the Ohio River expecting a boat ride from David Long, from McKees Rocks. When Yates and Folmer neared the boat, Long powered it just out of their reach, shouting "swim faster, swim faster!" Then Long drove his 22-foot craft in tight circles around both teens, creating waves that broke three feet over their heads. Long sped away laughing and throwing beer cans at Yates and Folmer. Yates struggled to swim and screamed for help. Folmer attempted to keep him afloat. Rich Myers, also 17, swam out to help. As Yates threatened to drag both teens under, they retreated. When they looked back, Yates was gone.

Long was charged with involuntary manslaughter, homicide by watercraft, homicide by watercraft while operating under the influence of alcohol, reckless and negligent operation of a watercraft, recklessly endangering another person, and violating two state fishing and boating regulations.

According to WCO Michael Wheale, this incident was the first time that a boater had been charged with causing a death by the wake of his vessel.

Last February Long was convicted on all charges. His sentence includes 3 1/2 to seven years in jail.—Ann Kreisler.

Rescued feline

It was unusual to see a cat swimming in the Lehigh Canal, especially directly in front of a rotund man who was fishing, and his wife, who was relaxing alongside while shelling peas. So DWCO Stanley Long inquired about the cat and how it might have found itself swimming for its life while they casually observed. He also mentioned something about an ASPCA group interested in this type of activity.

Long turned to check another angler when he heard a loud splash behind him. The man was now in the canal, up to his shoulders in the water, and had the cat by the neck. He was thrashing about in a struggle to reach the shore with the cat in tow. His wife was apparently concerned because she offered, "I hope it's not too deep. He can't swim," as she continued to shell peas.

The man finally fell on the shore exhausted, along with the cat. Deputy Long congratulated him on his willingness to risk drowning just to save an animal in distress.—WCO Fred Mussel, Lehigh County.



George E. Voelker, of Qnakertown, fooled this four-pound, 24 1/4-inch chain pickerel with a jig-and-minnow combination. He caught the fish in Minsi Lake last January.



Dean R. Bernabei, of Selinsgrove, took this nice walleye from the Snyder County portion of the Susquehanna River. The fish, caught on a seven-inch Rapala, weighed 10 pounds, 2 ounces and was 29 inches long.



Greg Billotte shows off his 3-pound, 2-ounce Susquehanna River smallmouth bass that he caught near downtown Clearfield last October. He says that over the past few years the section of the river from the Cnrwensville Dam to Clearfield has become an excellent fishery. More than a dozen different species of fish can be caught there regularly. Nice bass, Greg!

Why do you ask?

I find myself on the road quite a bit traveling from one part of the state to another with a trailerload of canoes. Meeting all kinds of people is a daily requirement. They make me laugh, some make me frustrated, and I wish others would just go away. Inevitably, all ask questions, some good, some bad. Here are a few of my favorites with responses I wish I could say!

"Do you work for the Fish Commission?" (As I stand by a white van with the Fish Commission's keystone symbol on the door, Fish Commission patches on my uniform. "No, I'm a bus driver!")

"Are you stocking fish?" (As I pull 30 PFDs out of the back of the van. "No, trying to save the ones that can't swim.")

"Which one are you going to give me?" ("Yeah, right!")

"Is it a regulation to cut the seats on a bass boat level with the gunwales? My buddy said it was." ("If I were you, I'd get a new buddy.")—Heidi Milbrand, Boating Education Specialist.



James R. Cimino, Jr., Vice-President of the Pittsburgh YMCA (seated), is "Captain Alcohol" in this boating safety program skit. Props make boaters aware that alcohol can affect the thought process, reaction time and dexterity. A tight-fitting hood represents the effect on the thought process. (The volunteer has trouble hearing and may feel closed in). A stereo head phone and radio can be added to represent stressors on the water. Sunglasses show how a drinker cannot see as well. Mittens illustrate the loss of dexterity. Lead weights placed in the mittens slow the volunteer's reaction time. The volunteer is then asked to put on a PFD, a task that is almost impossible in this "condition."

Cimino spearheads the Commission's boating safety programs at the Pittsburgh YMCA. Recently, 19 YMCA instructors were certified as instructors for the Fish & Boat Commission's Basic Boating (classroom) Program and Boating and Water Safety Awareness Program

Conservation Leadership Schools

The Penn State Conservation Leadership Schools are residential programs that emphasize natural resource conservation and environmental management planning. The two-week courses cover a variety of topics including watershed management, citizen action, basic ecology, land-use planning, alternative energy supplies, environmental risk assessment, and forest management. The classes will be held at the Stone Valley Recreation Area, with educational resources provided by Penn

State University. Sessions will be held from June 28 to July 11 and from July 12 to July 25, with an advanced session from July 30 to August 8. The advanced session is open only to students who previously attended a regular session. Students should be between 15 and 18, with a genuine interest in learning about natural resources and human interaction with the environment. For more information, contact Tammy Crissman, 102 Wagner Building, University Park, PA 16802, phone: (814) 865-3443.—*Charlene Glisan.*



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

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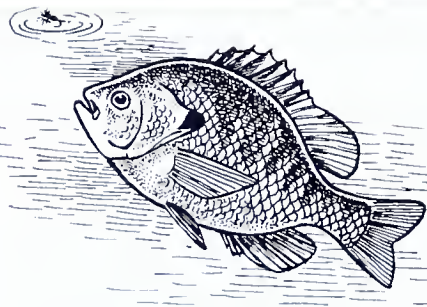
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Angler's Notebook *by Joe Reynolds*



Even bluegills can be selective at times. Try a no-retrieve cast, allowing a small fly to remain motionless on or just below the surface to draw strikes when the action slows. Spin fishermen can use this technique with a fly and casting bubble combination.

Avoid the use of snap connectors to attach lures. Anglers who use snaps tend to avoid changing knots and removing nicked monofilament near the connection. Snaps in light freshwater sizes often fail at inopportune moments when a big fish is hooked.

Small, crappie-sized jigs are effective for river smallmouths. Cast the jigs across-current using four-pound test monofilament and work them downriver along the bottom. Black is a good color.

Dry fly fishermen hook more trout when they can see the fly on the water. Add a touch of bright orange to the top of small dry flies for increased visibility.

Look for the biggest river smallmouth bass at the tails of pools during summer. This is a prime feeding area, especially early and late in the day.

Catfish holding in riffles often strike a small spinner. Try this action just before dark.

Bait fishermen after trout catch more fish with upstream casts that allow the bait to tumble downstream with the current, rather than weighted and fished at one spot. Use the least amount of weight possible.

Fish saved for the frying pan should be cleaned immediately after they are caught and kept as cool as possible. Check regulations, though.

A pair of inexpensive leather work boots is a good choice for wet wading in rivers. They provide better ankle protection than tennis shoes in rocky waters.

Dry fly fishermen can find that it is more productive to fish a single pattern in various sizes than to experiment with many patterns.

Plastic weed guards for electric motors also prevent prop damage when motoring in shallow, rock-bottomed waters.

Try hellgrammites for river smallmouth when the fish refuse other baits or lures.

New bass lures appear every year, but the plastic worm remains perhaps the most effective largemouth bass lure ever invented.

Fish finders that display the bottom in three dimensions help anglers visualize fish-holding bottom structure.

The average professional bass fisherman doesn't catch any more fish than the non-professional avid angler.

illustration- George Lavanish

On the Water

with Dave Wolf

"Baggage"

The grass is green now. A freshening wind carries its fragrance downriver. The whitetail, with newborns at her side, watches from the hillside as I wave the long wand overhead. The weather has warmed and it feels good—the freedom of short sleeves, the warm breeze that gently ripples the water.

I am in one of those moods. I want to fish leisurely, to make it last, to create a day that will be deeply etched in my mind. Yes, I have come to fish, but more to be at this place at this time. Today the rod and reel have created the reason to come to this stream. It is a stream that is not storied or over-popular, without a reputation for large numbers or size of fish.

But the trout are here, and I recall a 20-inch brown that came willingly to my green drake pattern last May. The trout took the fly that floated in its feeding lane, and it put up a tremendous fight before I was able to twist the hook from its jaw and set it free. I wonder now if it is still downstream, finning effortlessly beneath the security of the log jam that has formed at the bend. Maybe later I'll walk down and watch for a sign of the trout's presence. Maybe I'll just let the day transpire without great meaning or purpose. Yes, I'll allow it to unfold without planning on my part and just tag along to see what happens.

The wind rises and the license and trout stamp pinned to my vest flip up, like the landing gear of some great commercial airliner. The license allows me the privilege of being here—to catch a trout if I wish, or to simply blunder through an unplanned day. Everything has a price tag these days. To me the license is a bargain. Others disagree. But my rate for the year comes in somewhere around a nickel an hour, including the trout stamp. I consider that well within my budget.

I follow the path created by others at the stream's edge. There the boot prints have faded, for many are off chasing other species of fish now. I liken it to a deer trail, traveled and worn. I think angler paths have been accepted by nature as a predator's mark left on the land.

I cross above the riffles at the bottom of the pool and stop to watch the water do its frothy dance over and around the slate-colored boulders. I toss my concerns about bills, work and life in general on the riffles and watch them get swept downstream and around the bend. Later I will find them again, miles below here where the hard road parallels the stream. There I will pick them up, and on the drive home run them through my mind as I do most days.

I will contemplate and plan, make arrangements and appointments, and concern myself about deadlines I must meet. For now, however, they are excess baggage, something I should have never brought with me to this place. So now I litter the water with them, tossing even the smallest nagging thought from the back of my mind.



As I wade the water, I feel the slight tug of the current against my wader-clad legs. I can feel the coolness of the water, a sign that the stream is still in good shape. I watch both banks closely, looking for the rise forms of trout. The major hatches are over, but caddis flies still dance on the riffles, although I have tied a grasshopper to the end of my tippet and have a box full of ants, beetles, inchworms and caterpillar imitations tucked in my vest.

The stream, void of other anglers, is now mine, and I stalk and hunt the length of the pool. The wind, however gentle, may push terrestrials on the water and grasshopper imitations often bring nice trout to hand.

The trout bulge the water here and there and I have work to do. But I'm not going to hurry or become too intent. I may or may not catch trout before the coolness of the evening brings the chamois shirt from the back of the vest. Nor will it matter when I crawl through the thick streamside vegetation in the dark, unable to find the path, because once again I left the flashlight in the truck.

Today I will take the fishing as it comes, for I have nothing to prove to myself or to anyone else. I have come here for reasons only those who do the same will understand.

Down the hard road in the eddy at the tail of the riffle lies the baggage I had littered on the water. I think I will pass by and leave it for another day when I'll sort through it and toss away as much as I can. Call it house cleaning, a cleaning of mind and soul, on a day only nature can create and only we can appreciate.

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Bass Weight Predictions

from Length



Size of fish (inches)	Weight of smallmouth bass (pounds)**	Weight of largemouth bass (pounds)*
10	0.5	0.5
10.5	0.6	0.6
11	0.7	0.7
11.5	0.8	0.8
12	0.9	1.0
12.5	1.0	1.1
13	1.1	1.3
13.5	1.2	1.5
14	1.4	1.7
14.5	1.6	1.9
15	1.7	2.1
15.5	1.9	2.4
16	2.1	2.7
16.5	2.3	3.0
17	2.5	3.3
17.5	2.8	3.7
18	3.0	4.1
18.5	3.3	4.5
19	3.6	4.9
19.5	3.9	5.4
20	4.2	5.9
20.5	4.6	6.4
21	4.9	7.0
21.5	5.3	7.6
22	5.7	8.3
22.5	6.1	9.0
23	6.6	9.7
23.5	7.0	10.5
24	7.5	11.3
24.5	8.0	12.1
25	8.5	13.0
25.5	9.1	14.0
26	9.7	15.0
26.5	10.3	16.1
27	10.9	17.2
27.5	11.5	18.3
28	12.2	19.5
28.5	12.9	20.8
29	13.6	22.2
29.5	14.4	23.6
30	15.2	25.0



*Largemouth bass weights were predicted with fish from Cross Creek Lake, Washington County.

**Smallmouth bass weights were predicted with fish from the Mifflin County portion of the Juniata River.

This information has been provided by the Fish and Boat Commission Warmwater Unit.

July 1992/\$1.50

Pennsylvania ANGLER



Straight Talk

50 Years of Progress by 15 Atlantic States



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

On May 4, 1942, President Franklin D. Roosevelt signed Public Law 77-539, which established the Atlantic States Marine Fisheries Commission (ASMFC). The compact grew out of concern by eastern states over the Atlantic Coast's declining fisheries. Catches of lobster, shad, striped bass, flounder, and sturgeon had dropped dramatically during the early 1930s. It was evident that effective management and regulation of marine fisheries resources were needed to protect and enhance the Atlantic coastal stocks.

The participating states are Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia and Florida. Each state is represented by a member of the administrative agency in charge of marine fisheries, a legislative member appointed by its committee or the Commission on Interstate Cooperation, and a person appointed by the governor. The Commission is supported by appropriations from member states based on the value of respective commercial fishing landings and saltwater recreational trips.

I currently serve as Pennsylvania's administrative member. The Honorable Matthew J. Ryan, Republican Leader of the Pennsylvania House of Representatives, serves as legislative member. The gubernatorial appointment is currently unfilled.

According to the compact, the responsibilities of ASMFC are:

- To recommend coastwide management measures to the individual member states for those interjurisdictional fisheries found primarily within the states' territorial seas and internal marine and estuarine waters.
- To be a fact-finding and deliberative body with the power to make recommendations to the member states' legislatures, federal agencies and the Congress of the United States. All findings of fact and recommendations are evidenced by resolutions passed by vote in accordance with the rules and regulations. The verity of its transactions are to be established by written report, certified to be the action of the Commission over the signature of its chairman or the executive director.
- To establish the Commission's position on national legislation affecting the member states, provided, however, that the executive director may act for the Commission in case of emergency with the approval of the Congressional Legislative Committee.
- To nominate and assign duties to the executive director and to approve or disapprove any major activities of the Commission proposed by the executive director.
- To develop and administer fishery management plans for the Commission's Interstate Fisheries Management Program (ISFMP).

Although the variety of marine fishes native to Pennsylvania is limited to anadromous species such as American shad, hickory shad, blueback herring and striped bass, the Delaware River Estuary has recently been home to an increasing amount of marine aquatic life.

The largest interstate fisheries management program currently administered by the Commission is the striped bass fishery management plan, which involves all Atlantic states from Maine to North Carolina. Through the management controls set by this plan, the Atlantic Coast striped bass populations are being restored in major tributaries to the Atlantic Ocean. Hudson River stocks have been restored to former historic levels, and Delaware River and Chesapeake Bay tributary streams, together with other East Coast striped bass fisheries, are making significant progress. Under an adoptive management strategy, the ASMFC closely monitors and adjusts a member state's annual striped bass commercial and recreational fishery regulations to ensure that an adequate spawning stock is protected and the fishery is allowed to continue its recovery. Pennsylvania is an active partner in the striped bass program.

In addition, the Pennsylvania Fish and Boat Commission provides financial support for conducting research and data analysis and monitoring of the shad and river herring fishery management plan. American shad continue to provide excellent recreational fishing on the Delaware River and with construction of the Lehigh River fishways now in progress, and the Susquehanna River well on its way to American shad restoration and passage development, this unique marine species will become even more important to the Commonwealth.

Pennsylvania is also involved in habitat protection efforts of the ASMFC.

Pennsylvania is proud of its small but significant contribution to the 50 years of progress demonstrated by the Atlantic States Marine Fisheries Commission and its many programs. The Commonwealth looks forward to participating actively in future successes.

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Walleyes are remarkable. They are native to mid-North America, and that includes western Pennsylvania, and throughout Pennsylvania they are abundant. Walleyes weighing one to three pounds are common, and catching brutes of six to eight pounds is often possible. Walleyes are also a top-rated sought-after species among *Pennsylvania Angler* readers. In surveys over the years, *Angler* readers rate only trout, largemouth bass and smallmouth bass ahead of walleyes.

This issue's front cover, photographed by Doug Stamm, suggests the walleye's personality and popularity in Pennsylvania. If you're after some hot walleye action this month, check out page 7.

The article beginning on page 16 might raise a few eyebrows of anglers in southeast Pennsylvania, and if Raystown Lake is closer to home, check out some great sport on page 4. Trout and tricos go together in summer, so be sure to read the articles on pages 20 and 22. You might think that crappie fishing is a sport only for spring, fall and winter. Applying the ideas on summer crappie fishing on page 24 might change your mind.

RAYSTOWN LAKE'S SUMMER PERCH

BY JOHN W. SELCHER

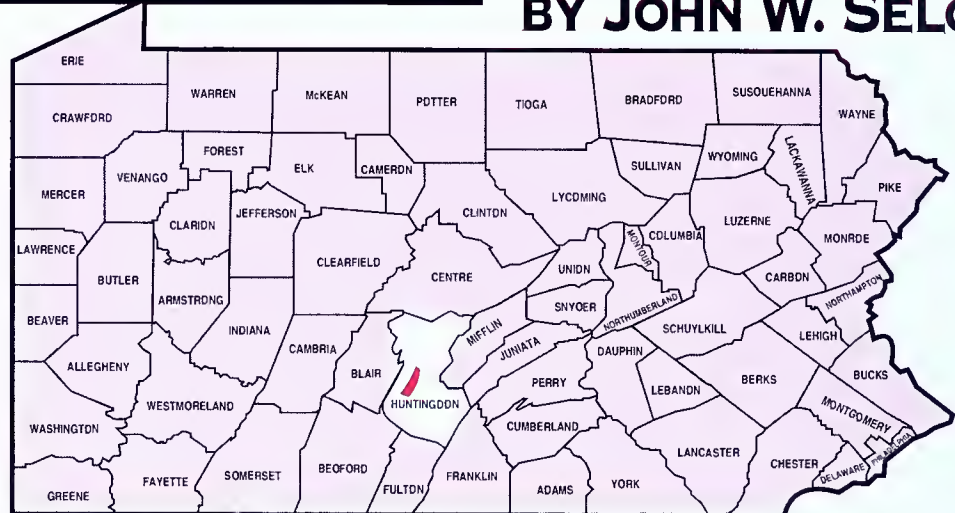
"I've got another one!" my father said. Moments later a pleasingly plump flash of green, black, yellow and orange appeared just under the surface. It was August 11, 1988. The water temperature was 82. Suddenly my own rod tip dipped with the throbbing of a Raystown Lake yellow perch. For two hours my dad and I rarely had to wait more than 10 seconds to connect with another perch. We caught them on jigging spoons from an area smaller than your living room in 40 feet of water. The action continued hot as the weather from 4:00 to 6:00 p.m. I released the 124 perch I caught that day, but the non-stop action remains pleasantly etched in my mind.

In the spring, catching fish is almost as easy as hitting the lake with your cast. The water temperature is increasing and so are the appetites of the fish. After a long winter of eating very little, a fish's metabolism shifts into "pig out." Its motto becomes, "If it moves, eat it. If it doesn't, eat it anyway." Springtime perch are scattered in shallow water and cooperative.

The good news is that the coming of summer doesn't end good perch fishing in Raystown Lake. During July, August and September they concentrate in large schools. I've caught over 100 perch a day several times during the summer. My personal record is 150 on August 25, 1988. That windy day three of us spent five hours anchored in eight feet of water without ever having to move. We fished directly below the boat and caught and released approximately 325 perch. And yes, I'm sure we didn't catch one 325 times!

Where to fish

For years I thought yellow perch were either glued to the lake bottom like peanut butter to the roof of your mouth or associated with aquatic vegetation. In Canadian lakes I'd fished, perch and weeds went together like cheese and macaroni. Perch are often found around weeds, but not always. In Raystown Lake I've never experienced good perch fishing around weeds. I fish mostly the upper third of the lake where aquatic vegetation doesn't extend

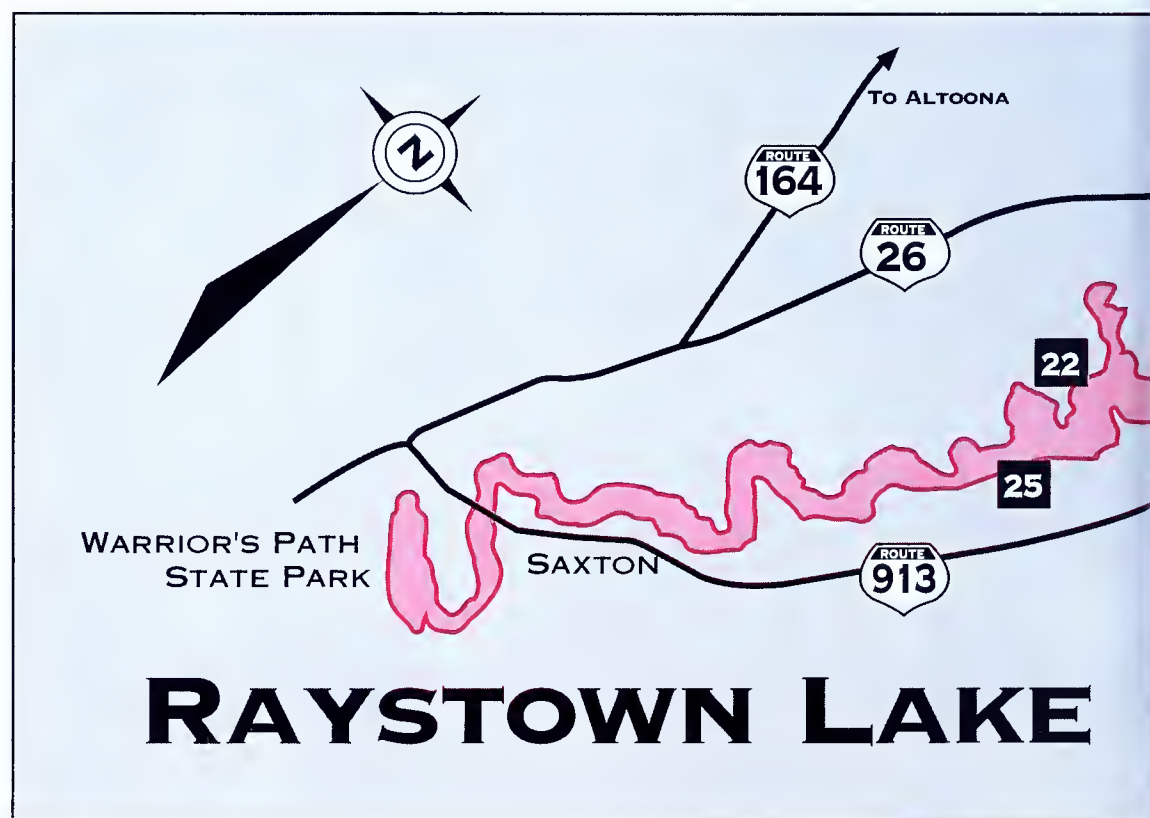


much deeper than five feet because of the water's turbidity. Five feet just isn't deep enough to hold perch consistently during the summer.

Fish location is 90 percent of successful perch fishing. One principle dictates more than any other where perch are in Raystown Lake. To find the fish, find their forage. In the shallower southern end of the lake, young-of-the-year shad are the most abundant forage for perch. Shad are like nomads, never staying very long in one place.

Perch follow the shad the way some trout fishermen follow stocking trucks! On August 25, 1988, I had my best day of perch fishing. I called my dad that evening and invited him to join me the next day to fish this fantastic spot. We fished the exact same location and caught absolutely nothing! The shad had moved, and the perch had, too. I caught 75 perch that day but in a completely different location.

Depths vary but forage remains the key. Sometimes perch are very deep. In No-

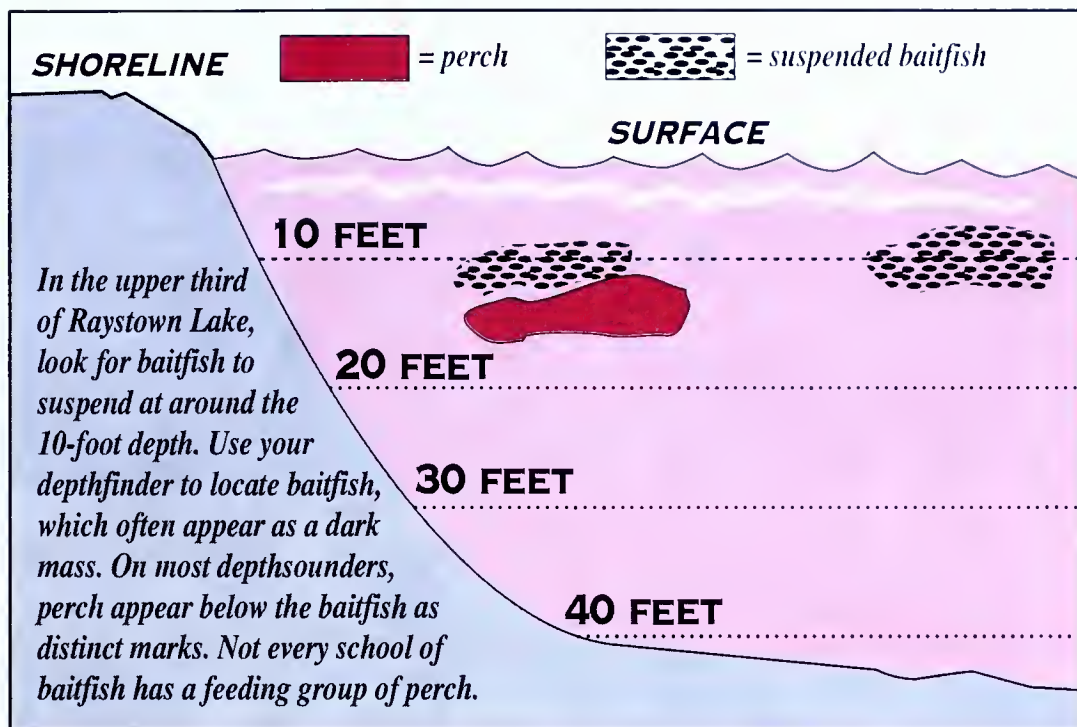


vember 1984 I was fishing around Seven Points from 2:30 to 3:30 p.m. Two other boats were in the same vicinity. We were all fishing near the bottom over a flat in about 55 to 60 feet of water. All of us were catching perch as fast as we could sink our lures down to them. These yellow perch had followed a huge school of forage fish that had moved up onto the flat. Fifty-five to 60 feet is the deepest I've ever caught perch in Raystown Lake.

On the other hand, I've caught them during the early morning and late evening when they were feeding on young-of-the-year shad just under the surface. Their presence was betrayed by slashing splashes and jumping shad. You'll find them close to their food supply from the surface down 60 or more feet, depending on the time of day and year.

Perch aren't the only members of the forage-followers club of Raystown Lake. On that afternoon in November 1984, the fishermen in one of the other boats landed a walleye and an eight-pound lake trout. I've caught largemouth and smallmouth bass that were chasing shad near the surface. Surprisingly, while I'm fishing for perch, I catch more brown bullheads incidentally than any other species. My personal record 14.9-inch brown bullhead was suspended about 15 feet down in 30 feet of water when I caught it on a jigging spoon.

Let's fine-tune perch location during the summer. In the upper third of the lake young-of-the-year shad are usually suspended somewhere in the top 10 to 20 feet of the water column. The perch aren't very far away.



Because we're often dealing with suspended fish, a depthfinder is essential for Raystown Lake perch fishing. To find the perch you have to find the shad. On my depthfinder, a school of shad appears as a solid mass of black squares. Perch usually appear as a number of separate and distinct black squares below the school of shad.

When I find this pattern on the depthfinder screen and catch a perch, I throw out a marker and fish the area thoroughly. Perch are like gnats—where there's one, there's almost always more. The perch my dad and I caught on August 11, 1988, were suspended about 10 feet down feeding on a school of shad in 40 feet of water.

The very best fishing occurs when the shad and perch move up on flats as they did the day we caught 325 of them. My depthfinder doesn't effectively locate bottom-hugging fish on shallow flats. I locate them by slow trolling. If I catch one I anchor and fish the area thoroughly.

How to fish

Locating perch is about 90 percent of the battle. When perch are in a feeding frenzy, they'll even hit that fluorescent pink and purple "what-is-it" in your tackle box that no self-respecting fish has ever hit before! But you've fished enough to know those feeding binges, though memorable, are rare.

When the perch are active and you're

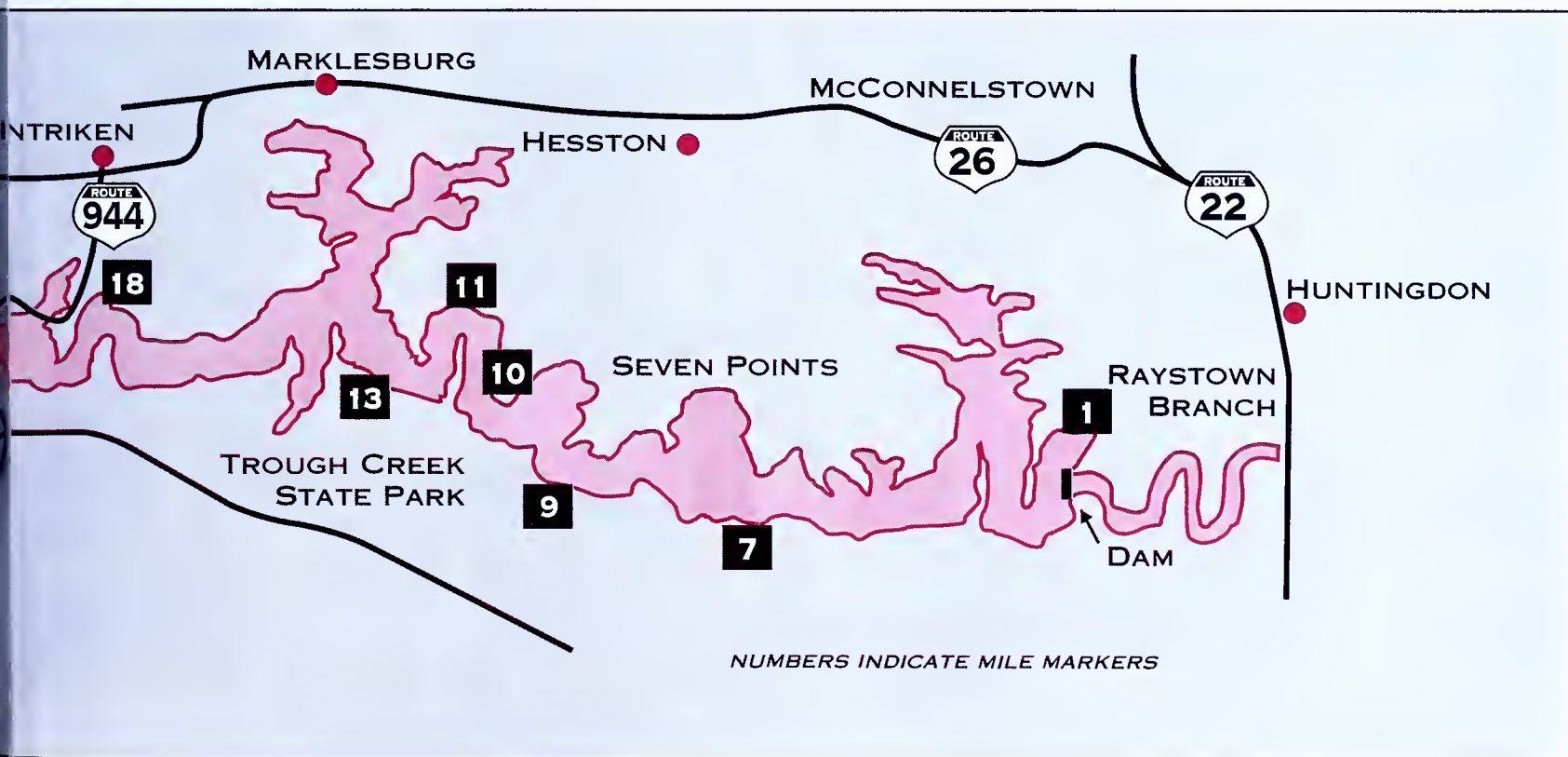




photo-Don Carey

When you search for perch with a jigging spoon, tip the offering with a piece of worm. This ploy often sparks interest.

directly over them, try a jigging spoon. They'll fight over that spoon like young men over the only young lady in town, and you won't have to waste time with live bait. Fish directly under the boat. I use eight-pound-test line and a medium-heavy graphite spinning rod. I prefer to jig a 1/4-ounce silver or gold Kastmaster or a 1/4-ounce or 1/2-ounce silver or gold Rocker minnow.

I suggest a different technique when you're searching for fish with a jigging spoon. Try tipping one of the hooks with a small piece of worm. That'll make the perch more cooperative and alert you to their presence. If you know the perch are suspended at around 10 feet, let out about 14 feet of line. Troll very slowly, turning your trolling motor on and off to maintain a snail's pace. To jig, let your rod tip almost touch the water. Snap the rod about two feet at a 45-degree angle to the water. Then let the rod drift back until its tip almost touches the water. As the spoon sinks, give it a slight amount of slack. This imparts a forward and down fluttering action to the spoon that's more effective under most conditions than an up-and-down action.

Most of the time a fish strikes when the spoon is sinking. Snapping the rod to pull the spoon up again automatically sets the hook. If you feel a strike, set the hook immediately. If you haven't used a jigging spoon much, it'll take a little practice to master this technique.

Another technique I've used successfully is trolling with a plug that dives to the level at which the perch are suspended. My favorite is a 3/8-ounce chartreuse Wigglewart that dives to about 12 to 13 feet when trolled. Water clarity determines the best color on any given day. Use the smallest plug that sinks to the desired depth. I use eight-pound-

test line and troll slowly about 100 feet behind my outboard-powered boat using a medium-heavy graphite spinning rod. Trolling generally produces bigger but fewer perch than the other techniques. On September 25, 1986, my dad and I used the trolling technique to put four pounds of perch fillets on ice. I caught my largest Raystown perch to date trolling a chartreuse Hot 'N Tot.

Early morning and late evening when the perch are feeding on shad near the surface or when the perch are on shallow flats, try casting spoons. My favorite is a 1/6-ounce gold or silver Little Cleo fished on a medium-light graphite spinning rod and six-pound-test line. Almost any small silver or gold lure works under these conditions. Experiment to see which lure works best.

My most successful terminal tackle for perch is a tube jig tipped with a garden worm or a piece of nightcrawler. A minnow-tipped jig is also a highly effective lure. Fish the jig and worm both on the flats near the bottom and also for suspended fish. Except during a feeding frenzy, a live bait-tipped jig is many times more effective than an untipped jig. I use 1/32-ounce or 1/16-ounce tube jigs usually with yellow or chartreuse tails. I fish them on six-pound-test line and a medium-light graphite spinning rod. I usually troll slowly with these jigs until I locate fish. Then I fish the area thoroughly. Many days fish will hit this rig when they'll completely ignore a spoon. On August 23, 1991, I caught about 140 perch on a flat. Repeated efforts to catch them on a jigging spoon produced almost nothing even though fish were everywhere.

Three productive techniques

Here's a trick that can greatly increase the number of perch you land on these worm-tipped jigs. For years I used the 1/16-ounce minnow lead heads that Bass Pro Shops sells to use with their "Squirmin Squirt" tube tails. I tipped the jig with a garden worm or a piece of nightcrawler and fished it

directly below the boat. Perch can steal your worm faster than a pick pocket can take your wallet. They're the most proficient bait-stealers that swim. Instead of taking the jig in their mouth, they nip-nip-nip at the part of the worm that is hanging free and all too often pull the worm off the hook. How often have you felt a *tap-tap-tap* and then nothing? If you've fished much for perch, you know exactly what I mean!

One way to hook more perch is to use small jigs or hooks. The problem is that the perch vacuum these up and swallow them. To avoid needlessly killing perch, use a 1/16-ounce jig. I don't know how to keep perch from stealing bait when you're using jigs this size, but here's how to double your hook-ups when you're fishing directly under the boat. When you feel the taps, begin to lift the jig about an inch per second toward the surface. You probably won't have to move it more than 12 inches. Watch your rod tip carefully as you lift the jig. Its movement will be subtle. When the rod tip bends down and stays down as you lift the rod, set the hook. Your bait-stealing perch has panicked and tried to grab the lure before it got away. This technique really works on perch.

Here are two tricks that can increase the number of bites when fish are inactive. The first is the opposite of the technique for increasing hook-ups. Bring your jig up off the bottom about a foot and very slowly lower it—about an inch per second.

The final trick is to lower the worm-tipped tube jig to the bottom, gently shake your rod tip, and then hold it still. Don't jig it. Sometimes this tempts a bite when nothing else does.

Finally, remember that no aquatic resource, including yellow perch, can withstand increasingly sophisticated angling pressure and still maintain its quality if we keep all we catch. Keep some for the table and release the rest. Our children and grandchildren will be glad we did.

Pennsylvania's Weedy Walleyes

by Jeff Knapp

In fishing, certain relationships tend to be made—like woody, weedy shallow cover and largemouth bass, and rocky river areas and smallmouth bass. The distinction is clear, and in most cases, accurate.

But what about walleyes, a species normally associated with gravel-strewn structure? What if someone were to suggest that much of Pennsylvania's lake-dwelling walleye populations related to weeds? Sound a bit farfetched, and not in line with traditional thinking? Keep in mind that smart fishing puts fish in the boat, not riding the bandwagon.

Many Pennsylvania lakes play host to submergent aquatic vegetation. The key word here is *submergent*. Perhaps the reason many anglers shun the thought of walleyes using weeds is that they think of shallow, sloppy weeds. The floating and emergent growth often associated with largemouth bass is not the type considered here.

Floaters and emergent weeds—water lilies, spatterdock, cattails and such—are generally found in shallow water, but submergent weeds tend to occur in deeper water. Examples of submergent vegetation in our waters include coontail, milfoil and pond weed, more commonly called cabbage weed. Pond weed, a leafy type of vegetation, is a particularly good fish-attracting weed. It's also more pleasant to fish around because the leaves aren't as clingy as other types of vegetation.

A lake must have certain characteristics to harbor quality aquatic vegetation. First, it must have fairly stable water levels. Reservoirs with seasonal drawdowns, such as Corps of Engineers flood control lakes, do not have these kinds of weeds. The drawdown exposes the shallow portion of the lake's bottom, eliminating the chance for abundant weed growth. Natural lakes, on the other hand, usually have good aquatic weed growth, and this is true in the case of Pennsylvania's limited number of natural lakes.

Good water quality and clarity are also important factors. The clarity largely determines the maximum depth weeds will grow. Aquatic vegetation is just like any type of growth. Plants need

sunlight. The clearer the water, the deeper the light penetrates.

A clear-water lake has weeds at a much greater depth than a dark-water lake. Weeds can be found as deep as 15 feet or so on a clear body of water like Keystone Power Dam. A heavily stained lake such as Lake Arthur may have weeds down only to six feet or so.

Bottom content also plays a role in determining the extent of weed growth. A fertile, soft-bottom area of a lake encourages weed growth more than a rocky one, or one comprised mostly of clay.

On most Pennsylvania waters, weed growth begins to fill in

enough to attract walleyes by early to mid-June. Throughout the summer, weeds hold walleyes. This cover harbors walleyes into the late fall, as long as the weeds remain green and healthy.

In lakes with both walleyes and weeds, you can bet that a certain percentage of the walleye population uses the weeds. Many food sources are found there. For example, young perch, a primary forage for walleyes, are often abundant in these weeds. Why stray far from the dinner table? And perch is just one food species common in deep weeds.

Walleye location

So if weeds hold walleyes, and many of our lakes contain the proper types of weeds, just where do you begin the search for these fish?

First, weeds should be considered added character to a piece of structure that could very well hold fish in its own right.

Take an offshore hump, for instance. This is classic structure, and most experienced anglers would

expect some gamefish to relate to it. Now add a thick patch of weeds to the hump, the thickness of which tapers as the hump drops into 10 feet of water. Not only does this area now have an added element to hold walleyes, but the weedbed edges tend to concentrate them.

The same holds true for other structural elements found throughout a given lake. Large feeding flats, points and bars—the same lake





photo-Doug Stamm



photo-Jeff Knapp

features on which you'd normally expect to find fish—become much more attractive when they have deep weeds on them. So when I'm fishing a lake that has weeds, I look for the best combination of structure and deep-weed cover.

The edges of a weedbed are often the focal point of activity. For walleyes, the deep edge generally holds the most fish. Irregularities on the edge tend to concentrate fish. These features can be interpreted just as you'd view a structural edge. There will be points and inside turns. In some areas, the deep weed edge ends in an abrupt wall. In others the growth slowly tapers. These characteristics depend largely on how quickly the bottom drops off.

Deep weedbeds can be located with the aid of polarized sunglasses, particularly later in the summer when the tips of the weeds are close to the lake's surface. But to be properly adept at locating weed edges, you need to find them with a depthsounder.

On a flasher, weeds appear as "feathered" bands extending up off the bottom. When over dense weedbeds, a flasher unit fires from top to bottom. On liquid crystal units, weeds appear as vertical bars. The thicker the weeds, the more bars. Thick weedbeds tend to "black out" the displays on liquid crystal graphs. With practice you can interpret the edge of the weedbed and hold the boat off this edge to make the proper presentation.

Presentations

During summer and fall, I fish often for weed walleyes on several Pennsylvania waters. Over the years I've developed several presentations that score in this situation.

Jig and live bait combinations are often best for working the edges of weedlines. During the summer months and into early fall, leeches tend to be the best live bait. Minnows work better in cooler water, below 60 degrees. Crawlers are effective, but they tend to get picked apart by panfish.

Jig selection is important. Some jigs work much better than others. In fact, the best choice is actually what's called a swim-

ming jig—a slender spoon-shaped affair fashioned on a long-shank hook. Examples include the Walleye Hawger, made by Jig-A-Whopper, Northland Tackle's Fire-Eye, and Lindy's Swimmin' Fuzz-E-Grub.

What makes these jigs so effective is that the line tie is directly on the nose of the jig. On a ball-head jig, which is made to hang perpendicular to the line, the line tie is on the top of the head. This design plows into weeds and gathers them on the line. The swimming jig tends to slink through the cover.

The jig-leech combo is great for finesse fishing, for working in a slow, methodical fashion. By replacing the leech with a plastic dressing, you can fish a bit more aggressively without worrying about tearing off the bait. I like to use a small plastic worm, like a Renosky Razor Worm or Mr. Twister Silkworm. Nose-hook the artificial critter just as you would a real one.

Another effective walleye presentation is a short-snelled bait rig. It's comprised of a light bullet-shaped slip sinker, a barrel swivel and a Phelps (Northland Tackle) floating jighead.

The weight should be about one-eighth ounce. Place this sinker above the swivel, which serves to keep the weight from sliding down onto the floating jighead. Use a short section of monofilament, about three to four inches, to connect the swivel to the jighead. The Phelps floater has the eye on the end of the jighead, so it slides through the weeds well.

Bass fishermen who use traditional lures such as Texas-rigged plastic worms catch their share of walleyes. This isn't just an accident. Texas rigging is an excellent way to take weedy walleyes. To up your chances of catching 'eyes, though, go with a slender worm, and trim it to about three to four inches. Use the same lightweight slip sinker previously discussed. Pumpkinseed and motor oil colors work well.

You can also Texas-rig plastic grubs. I've scored very well with Berkley Power Grubs and Galida's Grubz in the three-inch size. Smoke,

avocado and chartreuse grubs fool walleyes particularly well.

Many anglers believe that walleyes are tough to catch during the summer. Learn to fish where they live, in the deep weedbeds, and you'll prove this idea wrong.



Where are the Weedy Walleyes?

Many lakes in Pennsylvania have walleye-attracting weeds. Many of the larger waterways are located in the western portion of the state.

Lake	County
Pymatuning Lake	Crawford
Conneaut Lake	Crawford
Canadohta Lake	Crawford
Lake Arthur	Butler
Keystone Lake	Armstrong
High Point Lake	Somerset
Glendale Lake	Cambria
Lake Marburg	York
Nockamixon Lake	Bucks



Long Rods for Better Fishing

by Jim Gronaw



Euro-styled rods team nicely with today's American-made ultralight spinning reels.

A few seasons ago, two anglers were using the same basic tactic, but only one was having any success. As crappies and perch schooled within casting range, one angler made long, smooth casts, reaching the fish with his bobber and jig combo. The other fisherman could not reach the schooling fish because his ultralight panfish stick was only 4 1/2 feet long.

The successful angler used an 11-foot European-style match rod to make those super-long casts to get to the fish. As a result, one angler went home with panfish fillets; the other went home without. A simple matter of rod length meant all the difference between success and failure.

Let's face it. The modern American angler has grown up and become accustomed to using short spinning and baitcasting rods that tape out at five to six feet long. Fly rod enthusiasts certainly know the value of a longer rod within the bounds of their sport. Why wouldn't the same apply to the world of the spin fisherman? And for decades, European fishermen have used 10- to 20-foot rods for everything from light-biting fish to huge predatory pike.

Long-rod fishing is a highly perfected technique across the Atlantic, a form of fishing that is still in its infancy here in the United States. But early indications seem to show that this brand of fishing is very successful and is catching on quickly.

Although long and extra-long rods are certainly not a cure-all for today's varied angling situations, they give the fisherman a distinct advantage over others who are using shorter rods. The advantages are many, but not just any "longer" rod will do. Check out the longer ultralight sticks and the European-style rods on their own merits.

Longer ultralight rods

One of the more recent developments in rod types is very light, sensitive ultralight spinning rods that measure from six to 7 1/2 feet. Although this is not extremely long, in combination with tiny reels and light lines, the extra two feet of rod length make a notable performance difference. Recent developments in the walleye fishing world have led to a number of companies that are now producing seven-foot "walleye" rods that are actually bigger versions of the tiny ultralight forerunners. Also, some anglers are having their longer sticks custom made to suit their intended needs. Hence, graphite fly rod blanks are often used for this exact purpose.

The obvious advantages of longer ultralights are greater distance in casting and a better hook set with a longer rod sweep.

European anglers enjoy long-rod fishing success, and now we are, too.

Also, a six-foot to 7 1/2-foot featherweight rod is a dynamite tool for vertical jigging when you need sensitivity to detect soft strikes. These rods are great for those species that routinely suspend like trout or crappies. Deep-water dwellers, such as perch and walleyes, are also vulnerable to the long rod attack.

Though not the ticket for those tiny brook trout tricklets, these longer sticks can certainly be applied to stream trout and creek smallmouth bass fishing. The longer casts that these rods can produce are particularly effective when streams are low and clear and only those long-distance deliveries can fool those spooky trout or bass.

Perhaps the nicest aspect of the megalight rod is the ease with which you can toss tiny lures long distances, all day long, with amazing accuracy, and never grow tired from the effort. Sure, it takes a little getting used to. But once you become accustomed to the longer stick, it is just a matter of practice, accuracy and presentation, all of which fall into place. And it's a great rod to start children on as well. They can easily graduate to larger tackle having learned the basics on such gear.

European-style rods

Over the last few years, very long and sensitive glass rods have arrived in our country from Europe. But can they apply to our angling here in the U.S.? You bet.

Few anglers in Europe can afford the luxuries of boat fishing, so bank fishing strategists developed and refined the use of extremely long rods. These 10- to 16-foot giants may look funny, but don't count them out just because they aren't what you are used to seeing. Euro-style rods are perhaps the very best bank fishing tools ever. Developed for extremely light-biting European species such as tench, rudd and carp, these willowy rods are ideal for all kinds of panfish. You can make tremendously long casts to skittish, spawning bluegills or reach schooling crappies when others can't. You can easily doodle-sock in and around docks and piers and these rods easily drive hooks with their great length. There are few situations where they won't improve panfishing efforts.

Perhaps one of the best aspects of the Euro-style rod is its advantages when fishing

for suspended fish. Using today's fine-tuned slip bobber systems, you can easily fish 15 to 20 feet deep and still set hooks at a distance. The tiny fine guides provide minimal line slap against the rod itself on the cast. Although a nine-inch bluegill will double this rod over, you still have plenty of leverage to control and whip a much bigger gamefish.

The first time you cast one of these giants, it will feel very awkward and your timing will likely be way off. Don't worry. You can get used to that with a little practice. The best thing to do is to take the outfit to a local pond and sharpen your casting skills. It's like using a freshwater version of a surf-casting rod. It takes some time, but you can get used to it.

Euro-styled rods team nicely with today's American-made ultralight spinning reels. Quality four-pound-test lines are your best bets for deliveries and presentations.

Are longer ultralight and Euro-style rods the answer to every fishing situation? Obviously not. Are they the ultimate tool for those tough conditions that require finesse presentations for catching light-striking gamefish? Perhaps they are. About \$40 is a small investment for such a versatile piece of equipment. Although they aren't taking this country by storm, it's plain to see that the Europeans certainly knew what they were doing. Longer rods can improve your fishing.

ANGLER

Where to Get Longer Rods

Several companies offer the mega-sticks. ● Cabela's (812 13th Avenue, Sidney, NE 69160) carries the longer ultralights advertised as walleye rods. They also carry several models of European match and predator rods. Their "Crappie System" 11- and 12-foot rods are ideal for panfishermen. They also have the ultra-sensitive European floats and splitshots.

● Bass Pro Shops (1935 S. Campbell, Springfield, MO 65898) also offers a line of walleye-style rods that are essentially bigger ultralights. The company's "Micro-Light" series offers longer, sensitive sticks for finer presentations.

● Berkley (One Berkley Drive, Spirit Lake, IA 51360) now offers a line of longer, extremely sensitive slow-action rods in its "Air Lite" series. This new line also promises to be a step up from the old, shorter ultralights of past years.—JG.

Night Visions and the



The haunting howl of a timber wolf reverberates through the humid summer air. The eerie sound makes a crescendo and hangs for long seconds before trailing off in a deep, guttural moan. It comes back a split second later; no, an echo off the soft, glassy sheen of the lake. My head swivels slightly, locking onto the sound as the hair on the back of my neck pricks up. It is, I think, an instinctive reaction to the voice of man's ancestral enemy, in legend and lore, if not in fact. I wonder if the wolf would have the same reaction were he to hear my voice.

I am mesmerized, frozen into inaction except for my darting eyes straining to pierce the inky haze under the pale glow of a crescent moon. I know full well that the wolf at Speedwell Forge Lake in Lancaster County is someone's pet, and he stalks only the confines of his sturdy cage near the upper end of the lake. Still, perhaps tonight...

I dip the paddle once and push hard away from the steep, forested bank that rises to my left. The resistance feels good against the meat of my palm and I do it again, putting more distance between me and the soft whisper of fresh, green leaves high on the hillside.

Directly underneath me lies a section of the old roadbed that carried traffic from Lititz to Elm before the earthen dam at Speedwell Forge was constructed. In an instant I conjure up images from vivid stories and aging photographs; scenes captured 50 years ago when a smaller mill dam created a lazy backwater near this spot. Then, cabins dotted the far shore. A dirt lane along the corner of the dam provided access for the landowners and muskrat trappers of the day. It was a time of war fervor and tight money, but an industrious young lad could make a few cents from a muskrat pelt and a whopping three dollars from a single weasel pelt, equaling the wages for a full day's pay in the surrounding fields.

Now, on my right, an overgrown field nudges the water's

edge. The gurgle of rippling water against aluminum is nearly inaudible as the canoe cuts the barest hint of a wake in the black water. I search the shore for the sight of a deer and decide to see how close I can get if one appears.

But tonight the deer are not here among the blackberry thickets and the mulberry trees. I am disappointed until a bullfrog beckons with his deep, bellowing croak. I forget the deer as I search the shoreline for the well-camouflaged amphibian. I reach for the flashlight at my feet, figuring to catch the glow of his eyes in the beam, but then I discard the idea. I'll find him without the artificial light.

A loud *gallop* and a heavy splash tell me the creature has better night vision than I. I catch sight of the spreading circles rippling across the surface and think for a moment that they are much too big for a frog. Perhaps a largemouth bass had better vision than either of us.

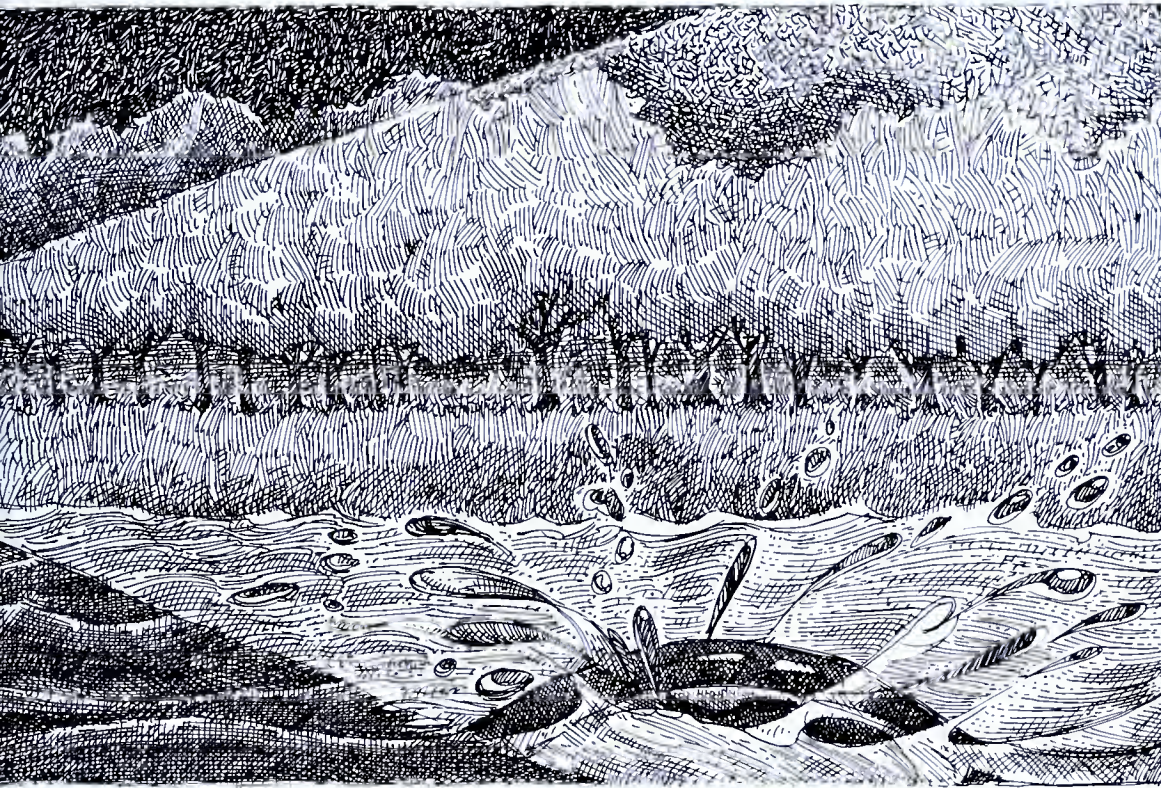
I switch the paddle to the other side and turn the canoe back toward the center of the lake. A smile tugs at my lips as I imagine the shake of the head and the elfin grin my canoeing instructor would offer at that sight. I make no pretense. I have not yet mastered the delicate art of paddling from only one side.

A light that seems harsh at first comes into view. It is the streetlight that guards one of the three access areas at the lake. I paddle past it quickly, annoyed at the intrusion, offering no more than a glance at the empty parking lot. A few hours ago it bustled with activity. But now, in the cool elegance of the night, I share the water with no one. It is mine.

The bridge at Brubaker Valley Road comes into view and I paddle through it quickly, abruptly shutting out the light behind me. But here, to my left, the signs of civilization are unmistakable and unavoidable. The Fish and Boat Commission's Southeast Regional Office sits majestically near the water, its two-story frame and tan stucco gleaming softly in the luster of an outdoor light. Along the roadway nearby are

Speedwell Serpent

by Joe Lowe



more houses and more lights and many human sounds.

I switch hands again. A few drops of cool water dot my knees as the paddle swings across them. The water feels good. I lean forward and drag my hand noisily through the lake's surface. The canoe noses to port, back toward civilization, so I grab the paddle in earnest and move away briskly.

The shadowy silhouette of a tree-covered hillside summons me secretly from two hundred yards across the lake. As I approach the shoreline, I glimpse the indistinct outlines of fallen trees jutting up from the water. Good structure for fish, but an area where caution is in order for a canoeist.

As I round the gray-boned branches of one such tree, a lantern flares nearby, flickering orange for a few moments before building to white-hot intensity. A country man and his golden-haired daughter tinker with the hissing lantern, unaware of my presence a few yards away. I am certain they will see my bright-yellow PFD when the tall, broad-shouldered fellow hangs the lantern from a tree. But he adjusts the brim of his straw hat and wipes his hands absentmindedly across faded jeans without looking in my direction.

He turns away from the lake and steps up to the lanky youngster. She is all arms and legs in a dull-red T-shirt and cut-off dungarees, gangly and inquisitive like a young colt as she hovers over an old, dented tackle box. Even from a distance I can see a glint here and a shimmer there where the years have worn through the tackle box's metallic blue paint. I reminisce about an aging metal box such as that; a hand-me-down that develops character with each passing generation, a box capable of withstanding the punishment that time and young anglers mete out. I nod ever so slightly. It fits the scene very well.

"Hello. Any luck," I call.

The man turns on his heels, surprise shadowing the lines in his face. The girl stands upright, all smiles and excitement.

"None yet," the tall man calls back, finally spotting me at the edge of his light. "Just getting started."

"We're going to catch some catfish," adds the youngster eagerly, her voice dripping with anticipation.

"Good luck." I backstroke and slip out of the circle of light.

A few strokes of the paddle push me around a small point. Here I decide to take a break and drift for a while. My eyelids fall and I think of a fishing trip to this lake with my sons, ages six and 10, less than two weeks ago. We sat by the lakeside that night, watching our yellow and orange bobbers in the glare of a lantern and eating the best bologna sandwiches ever slapped together as I wove a tale of the mystical Speedwell Serpent. It was a beast, I told the boys, not unlike the Loch Ness Monster; so secretive that it was rarely seen or heard, a creature thought to appear only in the black of night in search of rats

and mice that ventured too near the water's edge, a creature that had been rumored also to snap up cats, dogs, and small children, along with an occasional mule. The Speedwell Serpent was, of course, quite attracted to light, not unlike that emanating from the lantern at our feet.

"Yeah, right," retorted the eldest through a mouthful of bologna, a suspicious smile creeping across his face.

The youngest pulled his feet up, choosing to sit cross-legged on his lawn chair. "Maybe we ought to go soon," he offered, glancing into the darkness and then to the lantern.

The sensation of scaly fingers sliding around my neck wakes me with a start. I jerk forward, wrenching myself free from the grip of the dreaded Speedwell Serpent while flailing wildly with my left arm. The fingers of my right hand grasp futilely for the paddle and I fall forward, catching myself against the hard aluminum gunwale.

The canoe responds to the shift in equilibrium and skitters a few feet sideways, nearly dumping me into the lake, but rescuing me, thankfully, from the grasp of the creature. My hand miraculously finds the flashlight and I twist around, thumbing the switch into the on position. I am too late. The Speedwell Serpent has disappeared into the murky depths. I see only the feathery branches of a willow tree hanging over the water's edge.

I laugh aloud sheepishly, yet brush the lake's surface carefully with a stream of light before glancing at my watch. An hour has passed. It is time to leave the nocturnal world of the water.

I slip the darkened flashlight to the deck, pick up the paddle and swing 180 degrees about. Civilization beckons from a few hundred yards away. In several short minutes the magic will be gone. But on another summer's night, I promise myself, I shall again explore the night visions of Pennsylvania's waterways.

Reading Moving

More articles have been written in magazines and newspapers about fishing techniques than any other topic. But the best thing a stream angler can read for better fishing success is the water.

The terms *structure* and *cover* are not specific to lakes and reservoirs that harbor species such as bass and walleye. These features also play an important role in the casts and success of anglers who manage to land limits of fish consistently on streams and rivers.

It is said that 10 percent of the stream fishermen catch 90 percent of the fish each season. These statistics also hold true with a given stretch of moving water. As a rule, only about 10 percent of the given area in a section of stream actually holds fish. Knowing these hotspots by being able to read water conditions can greatly increase your odds against the resident fish in any stream.

Take trout, for example. In the early season, when they are freshly stocked in the streams, you can find them nearly anywhere. However, as the spring season transforms into warmer weather and summer, the fish move to specific stream locations.

Structure is the shape of the river or stream, including the sides and bottom. Cover, on the other hand, is anything located in or on the structure, such as rocks, stumps and submerged logs.

Structure plays an important role in where fish reside. Bends in the stream often create undercut banks and deeper pools. They should attract the attention of anyone walking along the stream bank with a rod in hand.

Although fish often venture into the riffles to feed, they usually hold more often in these deeper pools and eddies. The current is slower and the water temperature is usually more suitable in these locations.

Deep pools

Deeper pools could actually be considered the "homestead" of the resident fish. But when the evening insect hatches rise from the water's surface, they often decide to "dine out" just about anywhere the food is abundant.

When fishing the deeper pools, draw an imaginary line across the center of the hole. You can bet your best spinner that the vast majority of the fish will hold in the downstream half, facing into the current. Cast into the head of the pool, and let the of-

fering drift naturally into the holding area.

On larger waterways like rivers, deeper pools are often found in varying locations because of dredging operations. When these deeper structure features are in the middle of a stretch of river, you can often find a clue to their whereabouts on the water's surface.

As the water is forced upward at the end of the pool, a slight bulge appears on the water's surface. This dead giveaway can point out a target for river smallmouth bass. Because bass often hold at the lower ends of these pools, cast across the area so that your lure drifts just upriver from the tell-tale bulge in the water. Many river bass have fallen prey to anglers who recognize these sites.

Undercut banks

Sharp bends and fast currents create a feature in the underwater world where fish simply love to hang their hats. Stream banks that are undercut by fast water are always targets for anglers with stream-fishing savvy.

This structure feature actually doubles as a cover feature where fish are protected from predators. The fish that hold in these lairs also benefit from an abundance of food that rushes into these locations. Casting baits or lures into these caches usually produces a fish or two. Snags, however, can be a problem when tree roots are prevalent.

Sometimes a good method to use on undercut banks in small streams is to stick your rod tip into the feature and work your bait or lure in a jigging fashion with the rod. This technique often triggers even the tight-mouthed fish to take your offering.

Back water

In most cases, back water seldom holds trout in the warmer months. The water temperature is usually too high for their liking, and the oxygen level is low. However, in waters that hold bass, these spots can be some of the best places to cast.

Minnows and a vast selection of insects and other aquatic life abound in these locations. And predator fish such as stream and river bass often lurk in the weed beds.

Rocks

For a stream fisherman, a large rock located in the middle of the current is an obvious cover feature and target for a cast.

The current washes food around the rock, and you can often find feeding fish patiently waiting on the downstream side. A few casts upstream of the rock usually result in a response as soon as the bait passes around the rock.

Rocks come in all sizes and shapes and their effects on the water conditions cover a broad spectrum. A multitude of smaller rocks creates riffles. The riffles in a stream often attract fish in the summer months because of the higher oxygen levels they produce when fast currents run through them.

Waterfalls

Waterfalls also attract fish that need more oxygen during the summer months. On a small native brook trout stream, for example, you should always look ahead for the white water caused by the water rushing over rocks and logs into deeper pools.

Also not to be overlooked are the features that cause waterfalls. The fallen tree trunk or large, flat rock that creates the waterfall probably holds fish, so casts into the foaming water usually get a response from feeding fish. A pool created by a waterfall produces fish anywhere within its bounds.

Sunken wood

The most easily recognized water features are underwater structures such as stumps, logs and fallen trees. If there's a fish in the water, it will surely visit one of these cover features.

They offer protection from predators and provide shade. Stumps, logs and fallen trees also attract smaller baitfish. They provide an excellent ambush point for gamefish.

Considering these cover features, the term "tropism" comes into play. Tropism is the tendency for a plant or animal (including fish) to be attracted to, or turn away from, light. Most fish behavior is governed by light, and the habit of shunning it whenever they can, so anglers should read the water for shady locations. Sunken logs, submerged trees and stumps are the most obvious sites.

Concentrate on reading moving water to find promising spots. By understanding the habits of fish, and learning to "read" how they react, you can catch more fish.

Remember, never say "think" like a fish. Just know how to read the way they "react," and you'll greatly increase your success on moving water.

Water

by Karl J. Power

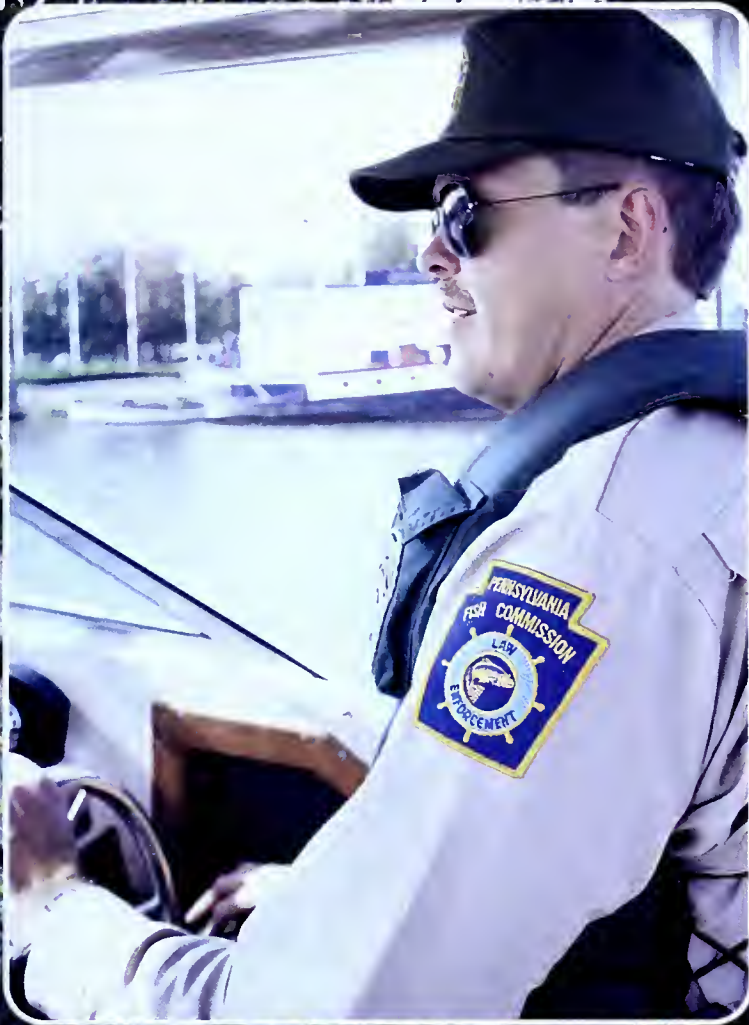


Patrolling Philadelphia: “Really an Amazing Contrast”

An interview with Philadelphia
District WCD John Sabaitis

by Art Michaels
Interviewer for the author





Art Michaels: When most people think of a WCO, they picture an officer patrolling a rural trout stream. What is incorrect about this picture for patrolling Philadelphia?

WCO John Sabaitis: Nothing is wrong with that picture if you were on Wissahickon Creek—you'd think you were on the Loyalsock or some other trout stream far away from a city. Both the Wissahickon Creek and Pennypack Creek are publicly owned and controlled by the Fairmount Park Commission. There is no need for people in Philadelphia to go somewhere else for quality trout fishing because they have it right here in these two waterways.

AM: What's the trout stocking program like for these streams?

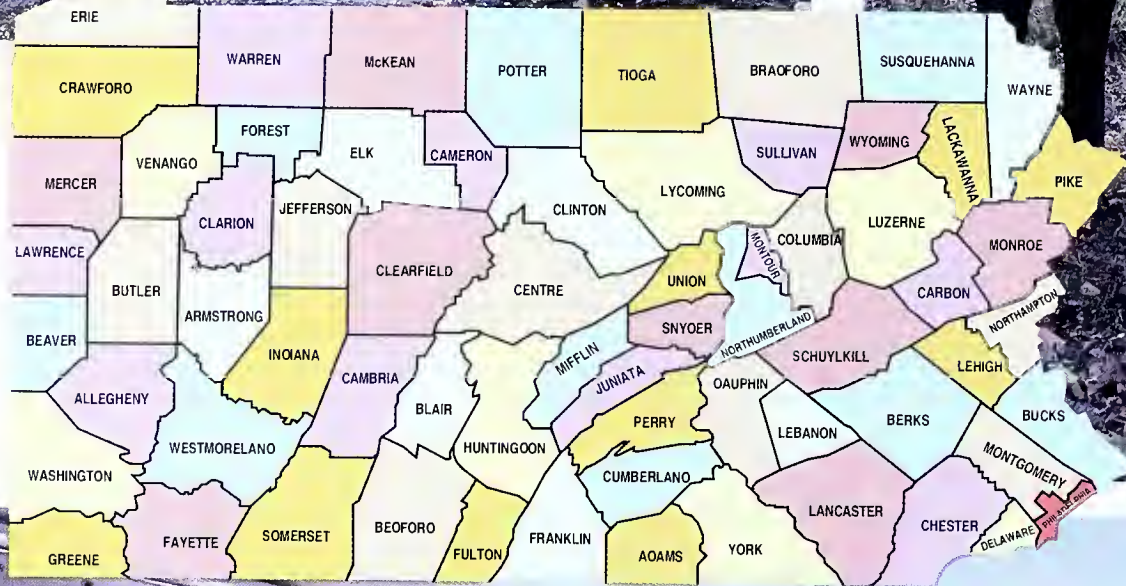
JS: The Commission stocks Wissahickon Creek with 7,900 trout preseason and 8,900 trout inseason in three plantings. The Pennypack gets 10,700 trout preseason and 12,000 trout inseason in three plantings.

That makes for a lot of fishing. The only difference, as far as the picture you created, is traveling between these two streams. Philadelphia is the largest metropolitan area in the state, so you won't see many farm fields or forested areas.

You might think the Wissahickon and the Pennypack are small streams, but in Philadelphia the Wissahickon is nearly eight miles of open stream and the Pennypack is just about the same length. So the two creeks provide almost 16 miles of trout water in the city of Philadelphia. Furthermore, you don't have to worry about public or private ownership or the stream being posted. You can just fish from one end to the other.

Anglers might also be interested to know that both streams have mayfly and caddis hatches.





AM: Where else is there really good fishing in Philadelphia? Where else would you direct anglers to try their luck?

JS: There's good striped bass fishing in the Delaware River, especially if you have a large enough boat, smallmouth bass fishing on the Schuylkill, and for sunfish and crappies, both the Schuylkill and the Delaware are good. The best spot for muskies is below the Fairmount Dam on the Schuylkill.

AM: Which fishing violations do you most often see?

JS: Fishing without a license. Otherwise, I see sub-legal striped bass caught and kept from the Delaware River.

AM: So many anglers in your district are boaters. Which boating violations are the most common?

JS: The most common boating violations are the complete lack of PFDs—life jackets—and an insufficient number of PFDs aboard boats. I have checked small boats on the Delaware with no life jackets at all.

AM: What is unique about patrolling the Philadelphia district—features that you might find nowhere else in Pennsylvania?

JS: You have everything here from trout streams to the Schuylkill River with small boats and the Delaware River, which is a major East Coast seaport with large ocean-going vessels. It's really an amazing contrast here.

AM: You graduated in the Commission WCO class of 1991. After all that training, how does your actual work compare with what you thought the job would be like?

JS: I was well-prepared to work in Philadelphia with the excellent training I received at the Fish and Boat Commission Stackhouse Training School and the Pennsylvania State Police Academy. I also worked six years as a DWCO in Schuylkill County, and I was a ranger with the Bureau of State Parks before I worked for the Commission. My force of deputy waterways conservation officers also does an excellent job—they're a great help. Basically, the only thing I had to adjust to was the fast pace of the city.

AM: Considering the Commission's mission, what are the most pressing environmental problems?

JS: Foremost is the job of preserving and protecting the waterways in Philadelphia from the devastation of pollution. Philadelphia has an unbelievable amount of industry.

AM: Any other environmental problems?

JS: Littering is a problem. One night I charged someone with littering, and the guy told me that the reason he littered was because there were no garbage cans.

AM: How can we solve these problems?

JS: The work done by the Fish and Boat Commission in Philadelphia before my assignment here has already shown its benefits. The Delaware River fishery has improved dramatically. What I want to do is continue the Commission's efforts for anglers and boaters in Philadelphia.

As far as littering goes, we should teach kids about the environment and we should teach them to respect it.

AM: What kinds of fishing opportunities do you think anglers in your district want?

JS: I am going to tie this answer in with the pollution problem because pollution is one of the main concerns of local anglers and boaters. They want a clean and safe environment. They also want more public access areas on the Delaware River. The Commission operates two accesses here—the Tacony Access and the Frankfort Arsenal Access—and there is a city-owned access at Linden Avenue. These places are packed during the summer.

AM: What do the boaters in your district want?

JS: More accesses. The Frankfort Arsenal Access is large and we can accommodate a lot of folks there. But on the Delaware there are actually few places to launch. Except for the three accesses I mentioned and some private clubs, there's no other access.

AM: What do you think people in other parts of Pennsylvania would be surprised to find in Philadelphia in terms of fishing opportunities?

JS: Striped bass fishing. Anglers fishing near the Philadelphia International Airport have told me that they had caught and released 20 or 30 stripers, some of which were the legal size of 36 inches. You can go out there and fish all day and have a good time.

AM: You mentioned catch-and-release fishing. What are the best ways to promote catch-and-release fishing in an urban environment?

JS: In my experience, the Commission itself is already accomplishing it through its KARE and PLAY programs. It's my responsibility to present the programs to adults and to educate the streamside angler on the necessity of conservation.

Pennsylvania Angler magazine is also very beneficial in promoting catch and release.

AM: John, what percentage of the anglers in your district fish for subsistence instead of sport?

JS: Probably at least 30 percent fish for subsistence, and I think that number will increase. Catch-and-release fishing is more prevalent on the trout streams. On the rivers, the Schuylkill and the Delaware, most anglers keep all the legal-sized fish they catch.

AM: Your district has the unique Pennsylvania fishery of ocean-run striped bass and blue crabs. You've already mentioned the popularity of stripers. How popular do you think blue crabs are among anglers?

JS: Blue crabs aren't as favored as stripers, but their popularity is increasing.

AM: What are some of your job responsibilities that anglers and boaters might not realize you do?

JS: A lot of people don't know how involved I get in pollution work. Investigations can be very time-consuming. I and other WCOs collect evidence of a pollution, get water samples, take interviews and write reports.

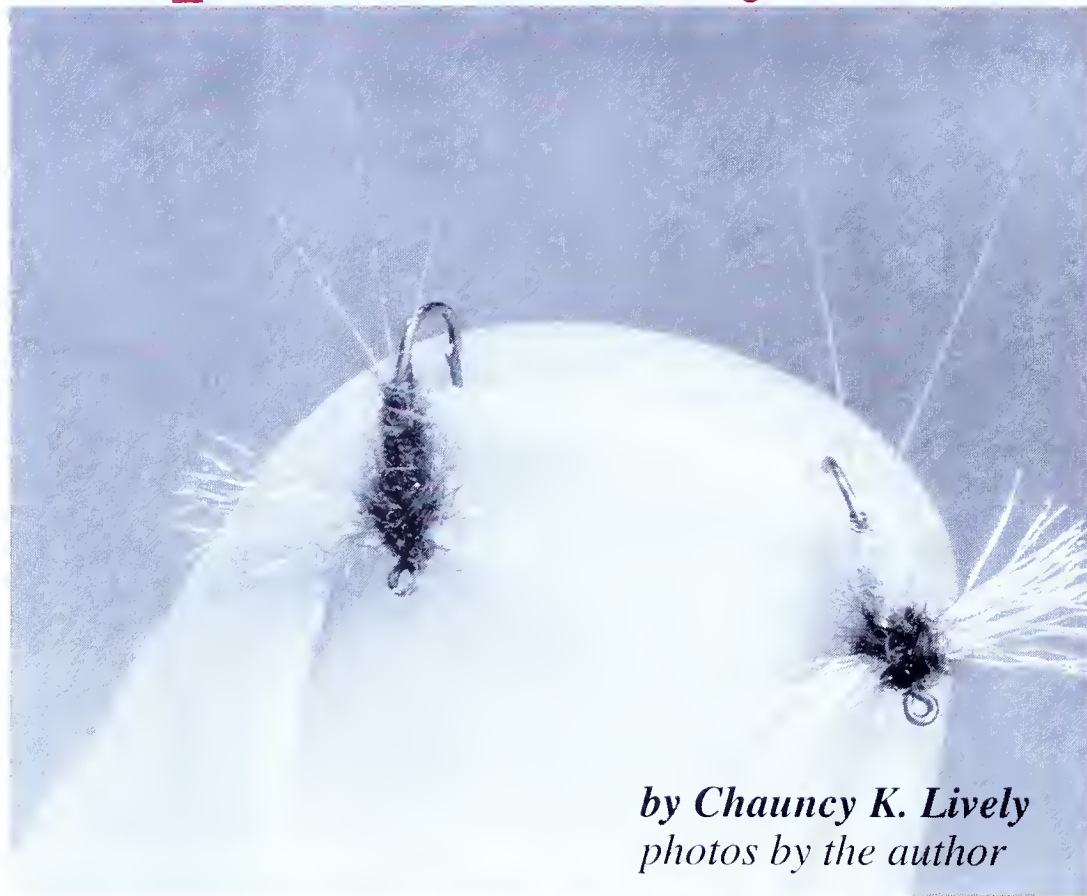
Most anglers and boaters might also be surprised to know the amount of work I do with license issuing agents. We WCOs are responsible for their approval. Our work with the agents ultimately protects license buyers.

Here in Philadelphia on the Schuylkill we have scullers, too—rowers—and many boating groups. I investigate encroachments for any kind of building or construction around the water, and there's the public relations part of presenting programs to sportsmen's groups. People are amazed at the amount of time I spend speaking to groups. There are some 25 sportsmen's groups in Philadelphia alone, and I want to maintain a cooperative relationship with all of them.

AM: What advice would you give anglers to help them increase their enjoyment of the river?

JS: Boaters should leave the alcohol on shore and always wear a PFD. We are talking big water here. I hope anglers would be especially mindful not to litter. We have something really special here in Philadelphia's urban environment and its boating and fishing opportunities.

A Special Tricorythodes



*by Chauncy K. Lively
photos by the author*

The second half of the 20th century has witnessed many remarkable changes in the ways fly fishers angle for trout. Before World War II, fly lines were primarily braided silk, finished with a protective coating of a varnish-like component. A silk, double-tapered line cast beautifully and its fine tip delivered a dry fly as softly as thistledown. Its principal failing was its inability to float very long, even when dressed. When one fished a dry fly and the line began to sink, it was necessary either to change to a fresh line or quit fishing and stretch the line in the heat of the sun until it dried.

Attached to the silk line was a leader of drawn silkworm gut that was even fussier than the line. When not in active use, the gut leader had to be stored in a felt-lined soak box that kept it wet at all times. If the gut were permitted to dry out, it became brittle and of little use.

Because of gut's temperamental nature, it was rare to find anglers using tippets finer than 3X. Nor were flies smaller than size 16 used commonly. Consequently, the presence of tiny insects on the water—midges, gnats, the tiny ephemerids or microcaddises—was chiefly ignored, even when it was obvious that trout were feeding on them.

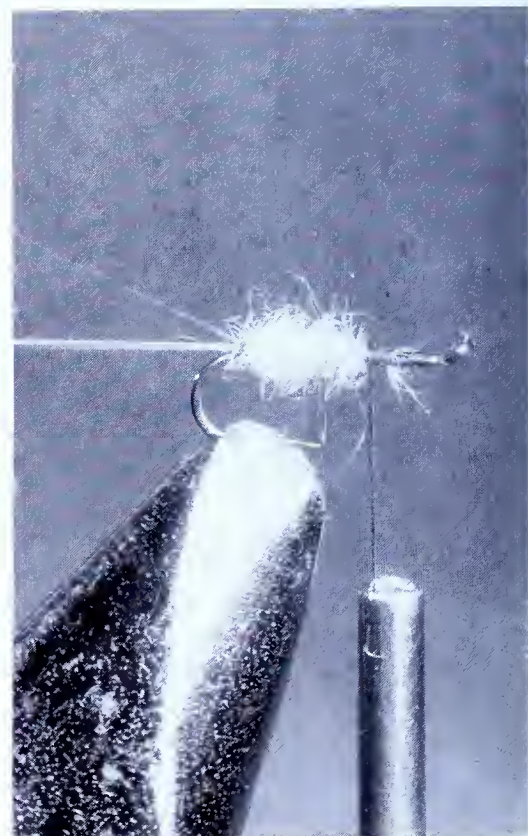
In England, the tiny Diptera were referred to as curses or smuts. Halford's advice to anglers encountering smuts was to avoid imitating the smut but to use "certain flies



1 Tie in the thread one-third the shank length behind the eye and spiral-wrap it to the bend. For tails, tie in three Microfibetts together at the bend for an effective length equal to twice the shank length. Wrap the thread forward over the tail butts and return it to the bend. Trim the excess butts. Separate the tails with a dubbing needle and wind between them to spread the outer tails.



2 Apply wax to a half-inch of thread next to the hook and pinch-dub the muskrat fur. (For male spinner, use black dubbing for the abdomen and thorax.)



3 Wind the dubbing forward two-thirds of the shank length and let the thread hang.

which have been proved by experience to be effective under such conditions." This vague instruction was supported by the belief that anglers were severely handicapped by the use of small hooks and fine gut.

Attitudes changed when nylon was introduced. Anglers quickly discovered the superior floating qualities of nylon fly lines. Similarly, anglers found that leaders constructed of nylon monofilament were far better than gut in terms of strength for diameter and carefree use. Now, with the availability of leader tippets of fine diameter and small hooks, fly fishers began to experience the delights of midge fishing, a side of angling previously ignored or avoided, except for a small coterie of die-hards who refused to acknowledge the difficulties.

Then a remarkable thing happened. The tiny Tricorythodes mayflies, which had existed for several millennia in waters widespread over the U.S., were finally "discovered" by fly fishers. Entomologists had long known about them, but the average angler who encountered them assumed they were midges and paid them little heed. In those days most fly fishers had scant knowledge of entomology except for the major hatches. But once the word was out about a minute mayfly that appeared in great numbers and consistently spurred frenzied surface-feeding activity, it wasn't long before anglers countrywide sought it out.

It seemed almost too good to be true. Where the seasonal duration of most known hatches had been measured in days or weeks, here was a hatch that appeared daily for several months on end. On Falling Spring, for example, the Tricorythodes often makes its first appearance in May, sporadically at first and continuing in an uneven pattern through June. But by early July it settles into a rock-steady daily appearance, as dependable as Old Faithful, and continues through summer and fall, virtually until the snow flies. During hot weather it emerges early in the morning, generally in the range of 6:00 to 8:00 o'clock.

The duns transpose to the spinner stage quickly—often in flight—and it's not unusual to see specimens flying with exuviae still attached. Generally, by mid-morning the spinner fall has ended and the angler must turn his attention to fishing terrestrial or other seasonal flies for the balance of the day. As fall develops and the nights become cooler, emergence takes place progressively later, and by mid-October the hatch may occur at noon or later.

Along with the development of new angling techniques to cope with the Tricorythodes and other minutiae came the advancement of fly fishing gear to its present state of the art. Without a growing interest in fishing "small and fine," I doubt we'd have the availability of lithe, featherweight rods capable of handling new fly lines as

light as 1-weight. Nor would we have strong leader tippet materials of near hair-thinness for attachment to tiny fly hooks of efficient design and strength. I think it is fair to say that the popularity of Tricorythodes fishing has had a profound influence on tackle development.

Our Special Tricorythodes pattern is "special" because of its winging material. Z-lon is a synthetic material developed by John Betts and its fine-textured fibers are ideal for dressing medium to small-size spinner wings on flies. A moderately sparse bunch forms easily dressed spent wings of correct width and exceptional toughness.

There is a long-standing argument about hooks for small flies. Which hook style offers optimum hooking: up-eye, down-eye or ringed-eye? Theoretically, assuming the popular cinch knot is used, a straight frontal pull of the leader angles the point of an up-eye hook in a downward direction. On the other hand, a down-eye angles the point upward and a ringed-eye pulls straightaway.

Frankly, I've used the three hook styles alternately for a long time and to this day I have not reached a strongly felt conclusion. For maximum efficiency, up-eyes and down-eyes should be secured with a Turtle knot or other knot that enters the eye and grips the throat of the shank behind the eye, producing a straight pull. A cinch knot provides a straight pull with a ringed-eye hook. Whichever hook style you choose, the hook should have a wide gape and small eye.

ANGLER



4 Select a sparse bunch of Z-lon and cut it into a length of roughly a half-inch. Lay this oversize bunch over the shank and tie it in as spent wings with cross turns. Then trim the ends of the wings to a length equal to the span from the rear of the eye to the outside of the bend. Apply a drop of lacquer on the wing windings and let it flow into the bases of the wings.

Dressing: Special Tricorythodes

Hook: Size 22 to 24, fine-wire.

Thread: Black 8/0 uni-thread.

Tails: Three pale microfibetts.

Abdomen: Dubbing of natural muskrat underfur (for male spinner, use black fur as in thorax).

Wings: Sparse bunch of pale dun Z-lon.

Thorax: Fine black fur or synthetic dubbing.



5 Wax a short length of thread next to the hook and pinch-dub the black fur.



6 Make a turn of dubbing behind the wings, criss-cross the turns around the bases of the wings and a turn in front of the wings. Then whip-finish behind the eye and apply head lacquer. With tweezers squeeze the base of each wing to flatten.

Finicky trout. Shrunken streams. Hot weather. These are just a few of the reasons given by anglers who think that trout fishing during the summer is a losing proposition. Though summer trout are wary, the stream flows become trickles, and the weather is hot, trout fishing can be pretty hot, too.

My fishing notebooks reveal that my summer fishing adventures weren't very successful during my formative years as a trout fisherman. If I caught two or three trout in a few hours of fishing, I considered the outing a good one. I was probably correct, too. Most of these excursions were evening forays, and the trout were often lethargic after a hot summer day. Not until I was marooned on a second shift summer job during my next-to-last year of college did I discover that evenings, in most cases, are not as productive as mornings for catching trout during the hot weather of summer. The morning trips of that summer certainly opened my eyes. I began to land a half-dozen or more trout regularly in several hours, and the fishing was comfortable until nearly noon. It was a productive time to be on the stream.

I did not realize why this was so during those years. However, as I gained experience, I learned that my success was dictated by water temperature. Trout are cold-blooded, so the temperature of the water governs their activity. The optimum water temperatures for trout-feeding activity are in the 58- to 65-degree range, and in summer most Pennsylvania trout streams read this temperature sometime during the morning. That's when the trout are vulnerable to the angler.

The amount of water in trout streams also plays an important part in how successful a summer angler can be. Last summer's drought essentially wiped out the fishing on many small Pennsylvania freestone trout streams. Northcentral Pennsylvania streams such as Young Woman's Creek, Cross Fork, and even the relatively large Kettle Creek were mere trickles, and their trout were virtually impossible to approach, let alone catch. During normal summers, the water in the freestones is low and clear and the trout are tough to catch, but it can be done, especially after a summer rain.

I love to fish small streams, but I have

found that dressing to be inconspicuous to the trout is essential. Old green or brown work shirts, my old, stained fishing vest, and a camouflage cap help me blend with the streamside surroundings so that I don't

ing, casting to suspected trout lairs and the trout greedily attacking my fly.

Small, spring-influenced creeks, such as Yellow Creek and the few accessible sections of Huntingdon County's well-known

Spruce Creek, regularly provide sporting action for the summer angler. Effective flies for prospecting include size 14 and 16 Wright Caddises, the reliable Adams in the same sizes, and white-winged Grizzly Parachutes.

Though it is popular to assert that terrestrial imitations such as ants, beetles and crickets are essential for prospecting for trout, it has been my experience that these terrestrials are better used to catch risers and the other flies are more effective for fishing the water.

JULY'S Hot Trout

by Richard Tate

frighten trout. I still fish carefully and regularly cast from a kneeling position when I am after wary trout.

A careful approach is necessary for consistent success on larger streams, too. You need to wade carefully to avoid sending shock waves over positions where you plan to cast. These waves alert the trout to your presence and will diminish your chances to catch them.

Dry flies

After you have found favorable water conditions and have successfully approached the trout, you have to be able to catch them. Prospecting with dry flies, generally referred to as "fishing the water," on small to mid-sized creeks and rivers is my favorite method. It is also effective. On the hard-fished public-access streams near my home, it is unusual if I catch and release fewer than a dozen trout in two or three hours of fishing.

One day last summer turned out to be a super day for dry fly fishing. I had chosen to fish a small creek that was in good shape despite the drought. It is fed by springs and it holds its water well. Fishing from 9:30 until 1:30, I landed 38 spunky brown trout between eight and 15 inches. Most of these fish took a size 14 tan Wright Caddis dry fly, though I must admit that the largest one took a nondescript Hare's Ear nymph. I also landed a fat 15-inch rainbow that inhaled a black Woolly Bugger I had drifted under a mass of in-stream garbage. But basically it was a morning of dry-fly fish-

Mayfly hatches

It is not always necessary to fish the water to enjoy productive dry-fly fishing in summer. There are reliable mayfly hatches that bring the trout to the top to feed. The most important of these is probably the early morning hatch of midget *Tricorythodes* mayflies. Known as Tricos by enthusiastic fly anglers, these small mayflies can provide challenging dry fly action on hot summer mornings. Many anglers use size 22 and smaller imitations to match the hatch, but I have found that a size 18 often works effectively, especially on trout inhabiting creeks that aren't pounded each day by hordes of fishermen.

Last summer after I had returned home from a vacation, I rose early in the morning and drove to one of my favorite little streams that harbors a decent Trico hatch. The action started at 8:00 and lasted until after 9:30. During the hatch I landed and released 21 beautiful brown trout ranging from seven to 13 inches. Each rose confidently to a size 18 Trico spinner imitation. I never even considered knotting on a smaller fly.

Action like this is fairly common on cold, spring-fed streams such as the lower Letort in Cumberland County, though Letort trout generally require a smaller version of the Trico. Because Trico hatches begin in mid-July and last into autumn on many streams, you can expect reliable action during summer mornings. Action can start as early as 7:00



Underwater deceptions are effective on larger waterways. Tossing a duo of weighted nymphs into choppy water and allowing them to drift downstream often works well.

on warmer mornings and by 9:00 on cooler days, and it usually provides an hour or two of fine fishing.

It was once popular to assert that trout feeding on Tricos ignored fishermen strolling up and down the banks of a stream, but except on some specially regulated streams where the trout become "civilized," I have found this to be generally untrue. At the first sign of an angler's presence, these wary survivors of early season onslaughts head for their nearest sanctuaries and do not emerge for hours.

You have to be realistic about the size of the trout you'll catch on Tricos, too. Though I have landed trout up to nearly 20 inches while fishing with Tricos, it is more likely that you will encounter trout ranging from eight to 12 inches, especially on public-access trout waters.

However, when you spot larger trout rising to Tricos, you can bet that you have a realistic chance for a hook-up. You might have to decrease the size of the fly you're using to fool these trout, but Trico feeders are generally enthusiastic and they eagerly accept properly presented frauds.

Blizzard

Another hatch that activates summer trout is an evening hatch of white mayflies. On the nationally famous Yellow Breeches

Creek, the hatch is the species *Ephoron leukon*, and it emerges there like a blizzard. Size 14 cream-colored mayfly imitations are good for imitating this white mayfly. Closer to my home, the Little Juniata River in Blair and Huntingdon counties has recently been receiving a lot of publicity about its summertime hatch of white mayflies. I thought these flies were in the *Stenonema* group, but others have declared the Little Juniata's white mayflies to be *Ephoron leukon*, too. No matter what their scientific name is, these white mayflies can provide good action on the Little Juniata, and occasionally one of the river's larger trout will fall for a White Fly.

Last summer, I landed a duo of Little Juniata dandies during a light hatch of White Flies. The hatch, which often lasts a half-hour or longer, lasted only about 20 minutes that evening. Even so, I landed three trout from a pool that had been my third choice that evening. My first two choices were already being fished. After a quick tussle with a junior leaguer, I did battle with a pair of good trout. The first was a sleek 18-inch brownie. The second, though an inch shorter, was a thick-bodied trout that made my rod bend and my reel wail the way I hope they will each time I'm astream. When I took down my rod for the evening, I was grateful that the other pools had been

occupied. A pair of trout like these puts me on cloud nine. The White Fly hatch of summer is a modest though reliable one in many places, and it really can help get you into some good fish.

Nymphs

Dry fly fishing isn't the only way to catch trout in summer. Underwater deceptions work effectively, too, especially on larger waters. Tossing a duo of weighted nymphs into choppy water and then allowing them to drift downstream often works well. In fast, choppy water, I occasionally add one or two size B splitshot to help get these flies to the bottom.

If you are not a fly fisherman, you can catch trout in summer, too. Although I am devoted to the long rod, I know several ultralight spinfishing enthusiasts who do well during summer. Casting small spinners directly upstream and cranking them back to their casting position provides them with a lot of hot action. One local enthusiast, Delmas Price, has landed several wallhangers over the past few years from waters that are pounded by other anglers. Thankfully, Delmas and his fishing partner, Ed Hoover, are dedicated catch-and-release anglers who appreciate the beautiful wild trout they pursue.

Trout fishing in summer: A lost cause? No way! It is a splendid time to be on uncrowded streams, and the catches you make can certainly be respectable. Besides being hot weatherwise, summer can provide lots of hot fishing action for enthusiastic trout fishermen.

Summer Quest for Crappies

by Darl Black



Where have the crappies gone? Weekend anglers ask this question every summer. Here's the complete answer.

By July there is a crisis brewing. Family members who participated in spring outings because they enjoyed the fast-action of crappie fishing are starting to complain. The shallow cover that produced so well during the spring has not given up more than a few small crappies on recent outings. Some anglers are about to store their rods until next spring. What can be done to keep the family fishing together?

Find the crappies! These members of the sunfish family are not turned off by higher water temperatures. They don't sulk in some hidden spring hole during the summer. Instead, they continue to feed. Even though they are not the easy pickings they were in spring, the summer crappie bite can be just as exciting.

But fishermen must adapt. Here are some tips on where to look, when to fish, and what to use.

Summertime moves

The very first thing the angler must do is break away from the shallow spring spots where crappies were caught in May and June. The crappies have given them up. You must do likewise.

After the crappies have completed their spawning rituals, they filter out of the shallows and begin a never-ending search for food. Their preferred forage is baitfish in the one-inch to two-inch size. Minnows, dace, shiners, alewives, gizzard shad—anything fits the bill as long as it is under two inches and plentiful.

At times crappies take advantage of an emerging insect hatch, but baitfish forage is their mainstay. Think like a crappie: Move to areas where large schools of appropriately sized baitfish concentrate.

Angling experts often refer to crappies as the fish of confined open water. Crappies are not a true open-water fish, such as stripers.

Nor are they as cover-oriented as largemouth bass. Yet, to say summer crappies ignore cover would be incorrect. Even though they are not cover-dependent, crappies use a variety of cover if it holds baitfish. Good summer crappie cover is simply deeper than spring cover.

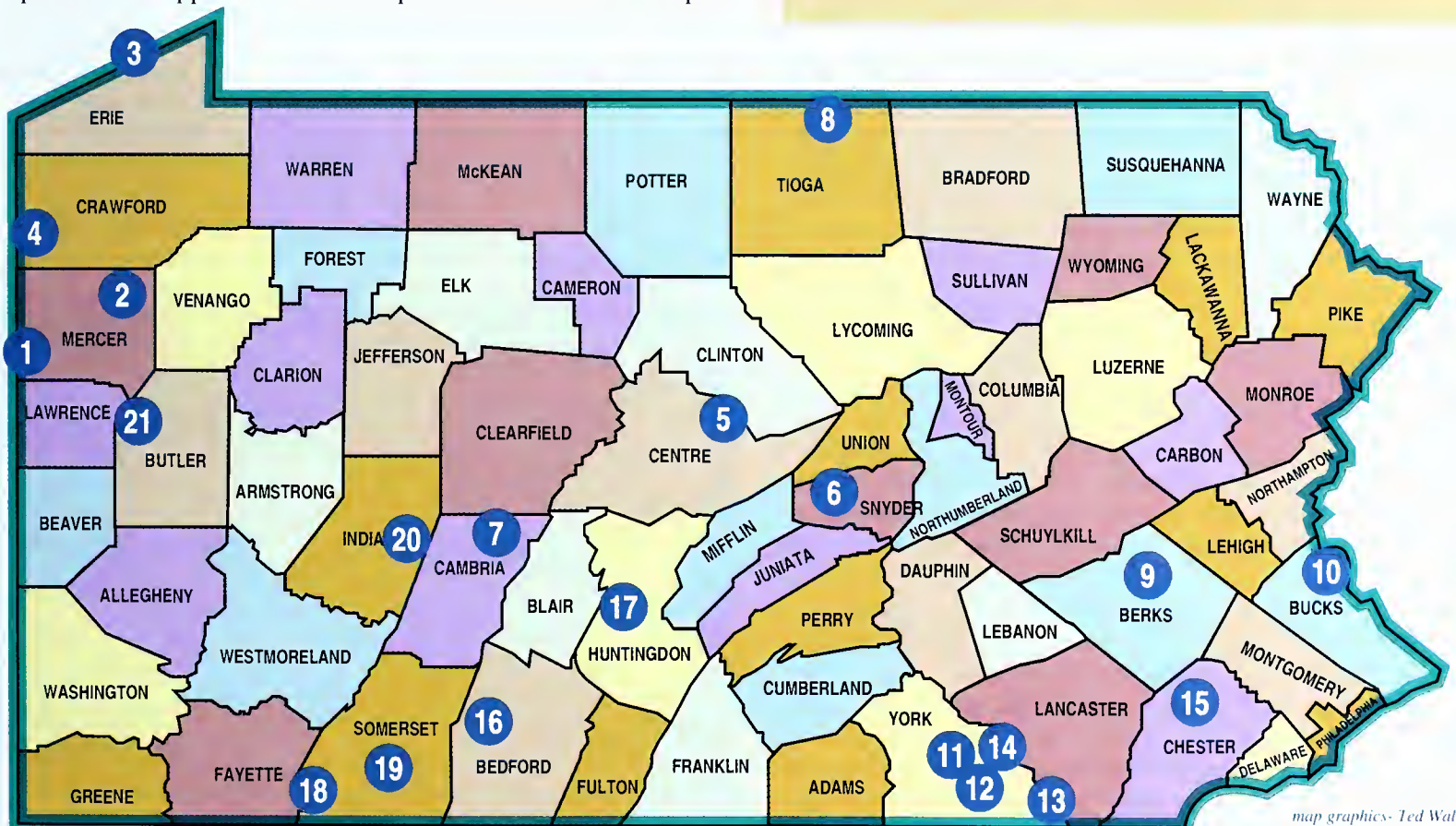
But cover is not a requirement. Summer crappies spend a lot of time suspended in the water column. Crappie schools often take up positions in relation to edges and dropoffs where they can move up to ambush baitfish, but easily slip into deeper water in unfavorable conditions.

21 Top Pennsylvania Crappie Waterways

These waterways are recommended for good summer crappie fishing by Fish & Boat Commission area fisheries managers. Waters are not ranked in any special order.

Waterway/County

- | | |
|-----------------------------|---------------------------------------|
| 1. Shenango Lake/Mercer | 12. Lake Williams/York |
| 2. Lake Wilhelm/Mercer | 13. Conowingo Lake/
York-Lancaster |
| 3. Presque Isle Bay/Erie | 14. Lake Aldred/York-Lancaster |
| 4. Pymatuning Lake/Crawford | 15. Marsh Creek Lake/Chester |
| 5. Sayers Dam/Centre | 16. Shawnee Lake/Bedford |
| 6. Walker Lake/Snyder | 17. Raystown Lake/Huntingdon |
| 7. Glendale Lake/Cambria | 18. Youghiogheny Lake/Somerset |
| 8. Cowanesque Lake/Tioga | 19. High Point Lake/Somerset |
| 9. Lake Ontelaunee/Berks | 20. Yellow Creek Lake/Indiana |
| 10. Lake Nockamixon/Bucks | 21. Lake Arthur/Butler |
| 11. Lake Redman/York | |



map graphics - Ted Walke



Summer crappies become roamers, making location changes based on the availability of baitfish—and sunlight intensity. Think of it this way: Sunlight is a turnoff for crappies. The brighter the day and higher the sun in the sky, the deeper the crappies move. In certain circumstances they may become shade-oriented.

Crappies change locations throughout the day. At dawn crappies might be near the surface over deep weeds or on the shallow part of a hump. As the sun climbs higher, the crappies move deeper, usually sticking to the shady side of the structure. At midday under a bright sun, the fish are at their deepest position—perhaps in cover, perhaps suspended over open water. They may be 15 to 25 feet deep at this point. As the sun sets, the crappies begin to move shallower again. They may feed just under the surface at twilight, but the school is probably in eight to 15 feet of water as opposed to being right on the shoreline.

Crappies do not always remain in the same areas all summer. Should a major baitfish shift occur, the crappies move, too. Baitfish changes are usually tied to an increase or decrease in plankton. Prolonged changes in wind direction, changes in water temperature, pH and oxygen levels, or an increase in current (as might occur in reservoirs impounded for power generation) are all possible causes for plankton-baitfish-crappie shifts.

How do you discover the depth range in which crappies may be working? This can often be determined by watching your depthfinder for suspended schools as you cruise the lake. But because the crappie depth is tied to the clarity of the particular body of water, you can get a pretty good idea without a depthfinder, too.

You can figure a guideline depth by determining sunlight penetration. In a vegetation-rich lake, the edge of the deep weeds indicates the limit of sunlight penetration.

However, on impoundments where vegetation is sparse or absent, there is a simple test you can run to determine approximate light penetration.

When the sun is high in the sky, tie a large white plug or bobber with enough weight added to make the object sink, and lower it slowly into the depths. When the white object disappears from view, measure the amount of line out. Doubling the depth at which the object fades from view yields the approximate extent of light penetration.

After you have determined the depth at which crappies will spend most of their daylight hours, either by observing them on the depthfinder or by determining the level of light penetration, a good part of the summer quest is won. Using this depth as a guideline, you may assume crappies will be shallower under a hazy sun, on overcast days, or at dawn and dusk. Under bluebird skies with a brilliant sun burning down, crappies will be deeper.

Remember that the deeper crappies move because of increased sunlight, the less likely they are to feed actively. This is especially true after passage of a summer cold front.

Locations to fish

Specific locations vary depending on the characteristics of each body of water. Natural lakes have certain features not found in impoundments, and vice versa. Anglers must adjust a search to the particular body of water.

In natural lakes with extensive thick weedbeds, the deep outside edge of the weeds generally becomes the focal point of a summer crappie search. Active schools move along the weedline, often stopping to feed at turns or irregularities in the weedbed.

Pay particular attention to sites where rocks, rubble or gravel meet or disrupt a uniform weed edge. Sharp inside turns of a solid “weed wall” are also key pivot points for crappies.

In low light, the fish may move on top of submerged weeds. In bright sun the schools move away from the weedline and drop into deeper water. Some stragglers may seek the shade at the base of the thick weed stand.

Crappie schools frequently take up a position a short distance from the weedline when they are inactive. This could be as much as 100 feet from the weeds, perhaps suspended or resting near the bottom in 10 to 25 feet of water. Even though most are not feeding, a few members of the school can usually be tempted into biting.

Mid-lake humps (sunken islands) that crest above the depth of light penetration attract summer crappies, too. If a hump is weed-



covered, the fish behave as they would in the shore-connected weedbed scenario.

However, don't overlook rock-capped humps. Even though very deep rocks are not productive this time of year, rock piles or rock-capped humps that top off above the depth of light penetration can be magnets for summer crappies. This idea applies to reservoirs as well as natural lakes.

With sunlight reaching the hump, the surface of the rocks becomes covered with moss that attracts insects. Baitfish are drawn to the hump, and crappies follow. In natural lakes and reservoirs with poor weed growth, the rock piles or rock outcroppings may become a primary focus for crappie anglers.

Impounded reservoirs have the added feature of submerged creek and river channels. If they aren't too shallow or too deep, the channel banks offer the edge or breakline that crappies favor. The sections of the reservoir with channel banks cresting in the 10- to 25-foot range are the most likely candidates for summer crappies. Crappies can move shallower to feed or slide into the deeper water of the channel.

Cover, including stumps, brush piles and rocky bridge abutments, is usually necessary to hold crappies along a channel. The cover concentrates minnows and small forage, which in turn attract crappies.

In steep-sided reservoirs, shoreline deadfalls can be an important spot for summer crappies. Downed shoreline trees that rest over deep water pull baitfish that in turn draw crappies. Often these trees are cut and cabled to the stump as part of a habitat project.

How deep must the trees be? That depends on water clarity, but a rough rule of thumb is this: If the tree rests on the bottom at less than a 45-degree angle, the adjacent water probably isn't deep enough for summer crappies.

Docks

One situation may appear obvious to some anglers, but misunderstood by others. Anglers may pass it up because it doesn't fit the profile of summer crappie spots. It seems like a spring site. What is this spot? Docks.

Groups of docks in a bay or along a sheltered shoreline often offer excellent spring fishing if the water depth is appropriate for spawning. But in the summer, the majority of docks do not hold quality crappies. However, if the docks or moored boats are situated over deeper water, the site may be dynamite in summer.

Shade is more a factor than the wood cover of dock posts and cross members. This is apparent when floating docks are involved, a common situation on steep-sided reservoirs. I have taken crappies from under floating docks over 15 to 25 feet of water. Of course, fixed position docks are productive, too, but the water under the dock should be at least eight feet and immediately adjacent to deeper water.

The dock bite will probably be either very hot or very cold.

Shore fishing

Shore fishing opportunities for crappies are severely limited during the summer. However, several spots are accessible to anglers without boats. Shoreline deadfalls that extend into deep water are very popular with bank fishermen. Deep docks may be accessible to bank-bound anglers, but marina operators usually discourage or prohibit anglers from fishing from the docks.

One of the best sites for shore anglers is a causeway that spans a lake. On a causeway, the best crappie hotspot is the bridge area. Other sites along the roadway may be enhanced with brush piles.

Presentations

A small jig or jig-and-minnow combination remains the number one crappie-getter right through the summer. Add two other lure presentations—slip bobber with minnow, and tiny crankbaits—and you have all that is needed for summer crappies.

When making any lure presentation, remember that crappies rarely feed right on the bottom. When actively seeking food, they watch for baitfish moving at their level or above. Crappies come up for a bait, but lures that pass below them may go unnoticed.

What this means to the angler is simple—all lures and live bait should be offered at the same level as the fish, or slightly above them. In particular, jigs should be worked with mid-depth swimming retrieves instead of bottom-bouncing.

The body dressing or soft-plastic grub on a jig head should not exceed three inches. Using a two-inch lure yields more fish, but jumping to a 2 1/2- to 3-inch bait selectively reduces the strikes from small crappies.

Crappie jig heads typically weigh 1/16-ounce. But you probably need more weight to maintain feel in deeper water, especially if the day is breezy. Two jigs rigged in tandem may be the answer.

Here is the method I generally use: Tie a 1/8- or 3/16-ounce jig to the end of your line. Then snip the line about 24 inches from the jig. Join the pieces together with a blood knot, adjusting the pieces so one tag end is about six inches long when the knot is complete. Attach a 1/32- or 1/16-ounce jig to the long tag end with either a uni-knot or an improved clinch knot.

Action-tail soft-plastic grub bodies work well for aggressive crappies. Also, be sure to try jigs that incorporate a flashy metal blade. These lures often catch the largest fish in the school.

For neutral fish, a marabou-tail jig tipped with a live minnow hooked through the head will trigger fish. Use a lightweight jig head so that it drifts slowly through the zone where the fish are holding.

The slip bobber rig has become one of the greatest assets for the summer crappie angler who prefers using live bait to casting jigs. With traditional fixed bobbers, the angler is restricted to setting the bait no deeper than the length of the rod. Otherwise, the rig will not cast effectively. But slip bobbers let anglers suspend a minnow at any depth. If you suspect that crappies are holding at 17 feet over 30 feet of water, you can put a lively minnow at that precise depth by adjusting the small bobber stop. The slip bobber slides up and down the line when casting and when reeling in fish.

New option

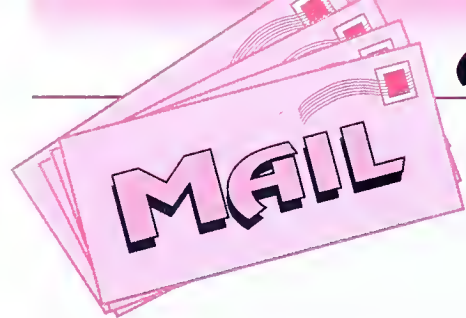
Before manufacturers brought out the new micro crankbait lures, I would not have suggested hard plugs as a viable option for crappies. But with a selection of quality crankbaits measuring two inches or less, a new option for crappie anglers has become available.

Crankbaits are most successful for aggressive crappies. They are an excellent tool for locating a school because the baits can cover water quickly. When you catch a few active fish, switch to a jig for additional strikes.

Tiny lipless rattle baits are perfect for casting along weedlines. Crankbaits with diving lips are useful for both casting and trolling. When trolling, use an electric motor instead of the outboard and add an in-line weight to take the plug to the fish zone.

Catching crappies during the summer is possible. It just requires evaluation of the water body, a little searching and some experimentation. Are you up to the quest?





Back issues available

As a long-time subscriber to *Pennsylvania Angler*, I find myself in the position of having more back issues than storage space. Some time ago, I noticed an item in the *Angler* from a person looking for a certain back issue. I wonder if there might be other readers who are looking for back issues as part of a "collection." I have issues starting with four from 1957. For most years I have 10 or more issues, and for 13 years (through 1988) I have all 12 issues. If there are any interested readers/collectors who are looking for *Angler* back issues, they can contact me.—*Charles M. Harriger, 3008 Mintwood Drive, Lower Burrell, PA 15068.*

Poem strikes a chord

As an *Angler* subscriber I was quite impressed with the poem appearing in the May 1985 *Angler* called "Companionship—at Last!" This poem about a father and his son was one of the most touching I have ever read. In fact, I made several copies and distributed them to friends, including my church pastor.

Another excellent poem appearing many years ago in the *Angler*, and I don't recall the title, would certainly be worthy of reprinting if you could locate it. I don't recall all the verses, but it went something like this:

"Show me a boy who likes to fish,/and I'll show you a boy who'll go straight./For the lad who finds joy in the great outdoors./Hasn't room in his heart for hate."

I have always believed that the youth of our country could benefit immensely from learning about our woods, waters and wildlife. The preoccupation with outdoor hobbies could help keep our youth off the streets and away from drugs and alcohol. Your great magazine helps tremendously in teaching our youth the great benefits of angling.—*Joseph Byham, Meadville, PA.*

Comments on smallmouth regs

I'm sure heads of governmental agencies are accustomed to receiving mail highly critical of their actions. However, that is not the theme of this letter.

For several years a group of us has fished the Susquehanna River at Harrisburg with

a guide. We fly fish for smallmouth bass using barbless hooks, releasing all fish, and we always have an enjoyable trip. What was striking about our recent trip last September was the proportion of larger fish (12 to 15 inches).

It appears your new regulations for this section of the river are already beginning to pay off. I commend you for your efforts in upgrading and protecting this valuable fishery, as I'm sure there was a lot of opposition to the changes.

You can bet we'll be back! Your work is definitely appreciated—thanks again.—*James L. Corbin, Yellow Springs, OH.*

A time for gleanng

I took advantage of a calm and unseasonably warm Sunday last November to paddle my canoe around Keystone Lake one last time for the season. The water level was low, leaving many of my favorite fishing spots exposed. One steep, stump-littered bank in particular caught my attention. I found it strange to be looking up at my fishing hole, which was practically hanging over me. Then I noticed sunlight reflecting off what looked like spiderwebs. When I got a closer look, the "webs" were actually fishing lines tangled in the stumps. I got out of my canoe and picked through the accumulated fishing gear, reminiscing on fishing where I was now standing.

There were many "beachcombers" walking on the more accessible stretches of the shoreline. I paddled over and got some folks to talk about their remarkable hauls of fishing gear gleaned from Pennsylvania lakes this fall. We shared our concern over the effect low water levels were having on fish and wildlife, but everyone was cheerful and enjoying the outdoors.

I wrote this letter to share a positive experience in the midst of an unhappy water situation, but I would appreciate an *Angler* article on what can be done to care for fishing resources during times of extreme low water levels. Perhaps you could have an article about sowing cover grasses to refurbish areas where weed beds have been devastated. You could also feature a story on maintaining structure projects and boat launches.

As always, thanks for a great magazine.—*John Cross, Indiana, PA.*

Thank you for your letter. We have shared your ideas with Commission staffers and contributors. In the meantime, check out the February 1992 *Angler* for an article on low stream flows.—ed.

Comments on Struble Lake

I believe Struble Lake in Chester County can once again become a good fishery. In years past (1978-1982), there was a tremendous growth of milfoil around the perimeter of the lake. Most of it grew in shallow water less than eight feet deep.

My average daily catch was close to the limit, but I never kept any largemouth bass because they were 12 inches or less—my largest was two pounds. The sunfish population was unbelievable. In seeking bass, I caught bluegills that were 10 inches—and many of them were in the six- to 10-inch range. A few pickerel were caught and released, all larger than 15 inches.

I think submergent vegetation played a strong role in this lake. Even on rainy days I caught bass. The vegetation served as a magnet for just about everything except walleye. Fishing at Struble Lake was predictable. Southwest winds brought success in the shallows on plastic worms, and the heat of summer was no problem. The vegetation cooled the water, provided shade and cover, and attracted baitfish—followed by the bass and frogs.

I don't think large stockings are the answer, although a few each year to establish generations may help. If the milfoil weedbeds can be kept up, the lake may help itself. I am not a fisheries expert, but I have seen this happen in other lakes in Pennsylvania and New Jersey. In Struble Lake, quantity of bass was a better description of the type of water it was. In 1980, the minimum size for bass was nine inches.—*Francis P. Gannon, Jr., Philadelphia, PA.*

One of the problems that we have observed with water milfoil and narrow-leaved pondweeds is their tendency to grow very thick in near-shore areas. In some lakes this has provided too much cover for bluegills, permitting young-of-the-year bluegills to exist in very high densities and resulting in stunting. This is particularly true when the largemouth bass size limit is 12 inches. Where possible, fall drawdowns may force young bluegills out of the weeds and partially remedy the problem. Combining this action with a higher size limit for bass may further aid in correcting the stunting problem.

In the case of Struble Lake in the 1970s and early 1980s, a factor in creating the large population of eight- to nine-inch-plus bluegills was the overabundance of walleye. Our original 1972 and 1973 stockings of walleye fry survived unusually well—resulting in stunted growth.

Even though we frequently received complaints from walleye fishermen, the bluegill fishermen were quite pleased. Those bluegills that escaped walleye and bass predation grew rapidly to very large sizes.

Stocking alewife in 1978 and 1979, which later spawned to provide a large forage fish population in succeeding years, combined with fishing pressure and natural mortality to stimulate walleye growth and reduce the walleye population. Also, around 1979 the bluegill fishery was overly publicized, resulting in heavy fishing pressure and predictable overharvest of the outstanding bluegill population.

By 1984, dense submerged weedbeds nearly disappeared. The balance that had existed among plant density, forage fish density, bluegill density, predator density, and fishing pressure to produce the outstanding bluegill fishery was upset. The lake has not supported a bluegill population of that quality since, although alewife and crappie anglers are pleased with these fisheries.—*Michael Kaufmann, Area 6 Fisheries Manager.*

Zebra mussels

I am writing on behalf of the "Friends of the Lake" of the Quaker Lake Cottagers Association in Susquehanna County. Our association is concerned about possible zebra mussel infestation because of the large number of transient boats using the Fish and Boat Commission access at Quaker Lake. Our committee has investigated the matter and is considering installing a pressure wash system to remove zebra mussels from boats before they are launched.

We would like to know if any other lake associations are concerned about the same situation and what action they may have taken or may be considering. We have acquired a wealth of materials on this subject that we would happily share with others.—*Herbert A. Kline, 7 Hawthorne Road, Binghamton, NY 13903.*

A/V Materials

The Commission has slide programs and 16mm and VHS movies available. For a current listing, send a self-addressed, stamped business-sized envelope to: A/V Library, Bureau of Education and Information, PA Fish and Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673. Indicate whether you want a listing of boating or fishing audio/visual materials.



Anthony Karnzie, Avoca, holds the new yellow perch state record he caught in Hunters Lake (Sullivan County) last February 19. The new record-sized perch was 16 inches long and weighed two pounds, eight ounces. Karnzie caught the fish while ice fishing, using a minnow on a tip-up. This new state record bests the old mark by two ounces.



Here I am with a paddlefish that I caught! Last summer I read an article in the local paper about the Commission stocking paddlefish in the Ohio River at Pittsburgh. It stated these fish could not be caught on hook and line. At first, I was concerned about my fishing license dollars spent to stock a fish I would "never" be able to catch. However, after considering the uniqueness of the species, I dismissed the thought.

On a frigid day last January, I was pleasantly surprised while walleye fishing below the Harmerville Dam, Lock 3, on the Allegheny River. I caught not one, but two of these unusual fish. The photo is the first one, which measured about 20 inches. I caught the second fish about two hours later. It was about 23 inches. I was fishing a jig and minnow from a boat just off the current. Both fish gave a good fight, and like everything else we caught that day, the paddlefish were released alive.—Roger A. Bonifield, Pittsburgh, PA.

New Northeast Law Enforcement Districts

As a result of hearings held two years ago that prompted public input concerning boating and law enforcement issues in the Northeast, the Commission has realigned districts for that region. The meeting was chaired by senators Charles D. Lemmond and Roger A. Madigan, with representatives George C. Hasay and Kenneth E. Lee in attendance.

Tom Qualters, Jr., has been assigned as Waterways Conservation Officer (WCO) for northern Wayne County. Donald Heiner, Jr., has become the WCO for southern Pike County. WCO Bill Carey has been assigned to a newly formed Lake Wallenpaupack

district that includes townships surrounding the lake, adding an additional WCO to the area. WCO Jeffrey Bridi has replaced Claude Neifert, a recent retiree in Luzerne County.

According to Edward W. Manhart, Commission Director of Law Enforcement, the Commission is pursuing more WCO positions in an effort to improve boating law enforcement by assigning additional personnel to the Philadelphia, Pittsburgh and Erie areas, as well as the northeast sector of the state. The new districts became possible as a result of House Bill 1107, which provided funding and positions to help with boating and enforcement problems experienced in the past on Lake Wallenpaupack and surrounding waterways in this region.



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

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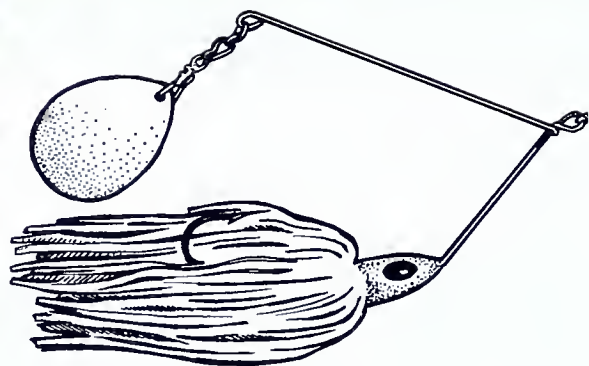
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Angler's Notebook *by Joe Reynolds*



Knots on spinnerbaits tend to rub on underwater obstructions more than knots on lures like crankbaits, so change knots often when fishing spinnerbaits.

Spinning line, fly line and fly leaders all tend to take a "set" when coiled on reels. Coiled line reduces casting distance and causes tangles. At the beginning of each fishing day, stretch as much of the line as you will be casting.

Sunlight and heat are major enemies of monofilament line. Store rods, reels and line in a cool, dark place, if possible.

Scientists have determined that bass prefer water temperatures just below 80 degrees. At 90 degrees bass may be active only about four hours a day, especially during early morning.

Protection against sunburn is a must for fishermen, especially for those who burn easily. Apply sunscreen or sunblock to exposed areas and wear a hat or visor to protect the head and face.

Flies that imitate terrestrial insects such as grasshoppers, beetles and ants are the best bet for summer trout fishermen.

Do everything possible to ensure that youngsters catch fish during an outing. Choose a location that is loaded with crappies, bluegills or other panfish. Most kids have a short attention span, so the more fish they catch, the more they will want to go again.

Thoroughly fish areas where a stream enters a lake or pond. The water temperature at these spots is generally cooler than elsewhere in the lake during summer. Bass seek out the cooler water.

Avoid netting fish whenever possible. Nets can damage tail and fins and remove some of the protective slime coating on the body of the fish, making it susceptible to a potentially fatal fungus.

Bass often go on brief feeding sprees just after a short, heavy downpour from a thunderstorm. The rain cools and oxygenates the water, causing increased feeding activity.

Boat trailer bulb failure is typically caused by the hot bulb coming into contact with cool water. Unplug trailer wiring before launching to reduce chances of bulb failure.

When using a trolling motor on a small boat or canoe, tie a rope to it, and then tie the rope to something solid in the boat as a precaution against loss.

Ready a boat for launching before you back it down the ramp. Put in the drain plug, tilt the engine, remove the straps and transom tie-downs, unhook the winch strap, and load tackle and other gear from the vehicle.

illustration- George Lavanish

On the Water

with Dave Wolf

Sharing

The egret stands on guard at the launch area. He is not waiting for hand-outs—he is fishing. I'm amazed at his patience as he stands in the shallows, head cocked to one side with his piercing yellow eyes glaring through the water. He had already taken one fish as I loaded gear into my canoe and another before shoving off. I noted that the bird had not read the regulations posted for the lake. This body of water was flourishing under the Fish and Boat Commission's Conservation Lakes Management, but the egret was paying little attention to size limits.

I shove off and draw the bird's attention. Now, rather than looking for his prey, he watches what he might perceive as a predator. But a few casts later I hooked a chunky bluegill, 40 feet below where the egret had been fishing. The splash of the bluegill on the surface caught the egret's attention, and he waded cautiously toward me—his eyes glued on the fish I had been fighting. I suspected that he might try to steal my catch, but he was a gracious fisherman and only watched as I landed and then released the bluegill. The bird watched the fish swim away and then glanced at me, probably wondering, if birds do such things, why I would release my evening meal.

The egret and I fished the shoreline together throughout the evening hours. It was June and bass season had begun the week before, and I was targeting bass. The egret was not impressed with my catches of beautiful largemouth, which were coming on in good numbers and reaching nice sizes under the lake's new regulations. These were bass dressed in lime and with army-green striping, bass that shattered the mirrored waters of the lake and hung suspended in a spray of water brought with them from the shadowed depths.

The egret was interested in smaller prey and did not seem to care what species he took. From young-of-the-year bass to a variety of forage fish, the egret was taking and enjoying whatever was available. I enjoyed watching him fish, and he showed interest in each fish that I tugged through the water. In time it seemed all was well between us, and sharing the water was not a concern for the fish-eating bird. Nor did I mind that the egret must eat, with fish comprising the majority of his diet.

I was fascinated by the bird's fishing procedure and ability, nothing man could do would compare. I reflected on the fact that more than one predator exists out here on the water; that I share these waters with other anglers, often more of a nuisance than a wading bird, and many times not nearly as polite or willing to give one another room to fish.

Still, despite a growing number of anglers and the return of fish-eating birds on open waters, there seems more than enough to go around. Sharing water must be an accepted practice, if not by choice then out of necessity.

Rings expanded on the mirrored waters as bass moved into the shallows for feeding purposes. The sun began to set, and a foggy mist hung over the water. I dipped the paddle in the water, leav-



ing tracks much like the wading egret and covered the expanding rings with a fly rod popping bug. The bass came up and over the popper, taking it as he re-entered the now-shattered waters. He was a large bass, heavy and strong, and he ran line off the reel, shook his head twice and came to hang over the water once again.

The misty fog, the last of the sun trying to penetrate it, the cool of the evening, the bass all in one frame that a photographer could never capture or an artist could not lay on canvas. The bass and I fought until finally I was able to grasp his lower lip and hoist him from the waters. He was a good bass, long in body and heavy in weight, the kind you like to show to your friends.

I had not heard the wing beats and I know not where he had gone. As I turn to show my fish to the wading bird, he was gone. Somehow that steals my bragging rights, for I wanted to show the egret my prize.

I worked the hook free and lowered the bass back into the water—a slap of the tail and he was gone. I paddled back to shore in the last minutes of light, searching the shoreline for the egret, but he was nowhere to be found. And it was then that I realized sharing can be inconvenient and at times frustrating, but it also can be and often is a rewarding experience, no matter who you share the water with.

I loaded the canoe and turned to look at the lake one last time. In the dark I heard the splashes of feeding bass and the smacking feeding sound of panfish, and nature and her inhabitants would continue on. And I hoped to return and hoped, too, that the egret would be there, along with a few anglers.

ANGLER

10 MINUTE POINT Trailer Check

by Art Michaels

No angler wants to hamstring his fishing trips with a mid-season boat trailer problem, so now is a good time to check over your trailer. This 10-point check should take about 10 minutes, and it can save you time and money later.

1 Coupler. This connection is the most important in your rig, and it's often the most ignored. Look for broken washers, cracks in welded seams, twisted parts and reamed holes. The coupler should fit firmly on the hitch ball, but not so tightly that it seizes when you turn the tow vehicle. Clean the ball clamp and lube it with oil, and adjust the fit, if necessary.

2 Winch, winch stand. Tighten all nuts and bolts. Unravel your winch rope or cable. If it's frayed, get a new one. Inspect the knot that connects the winch rope to the snap hook.

3 Tongue, frame members. Check for rust, not so much on the exposed parts, but at joints, inside corners and weld seams, where rust often begins. Dry these places and paint on a coating of waterproof grease for extra protection. Tighten all the frame nuts and bolts. Shake the trailer here and there to test for soundness.

4 Tongue weight. Balancing the trailer load properly ensures a safe, smooth ride. Tongue weight for most small-boat trailers should be five to 10 percent of the trailered load. Check the tongue weight with a bathroom scale. Place a block of wood on the scale to help distribute the weight evenly. Use a box, crate or chair to keep the scale at the hitch ball's height.



5 Lights. Inspect the connectors from the tow vehicle and the trailer to make sure they are free of rust and corrosion. Clean the connection either with a knife or with sandpaper wrapped around a toothpick. Spray connections with WD-40 or CRC to ensure solid contact. To ward off moisture, coat all electrical connections, bulb sockets and splices with petroleum jelly.

6 Wheels, hubs. Prop up one wheel at a time. Spin each propped wheel by hand and listen. If the wheel spins quietly, the hub is probably OK. If you hear grinding noises, a problem inside the hub is brewing. Grasp the propped wheel with both hands and move it forward and backward, checking for play. If it's firm, the hub is OK. If there's play, another problem inside the hub is in the making.

7 Tires. Check the air pressure. Keep your tires filled to the capacity listed on the tire—no more, no less.

8 Rollers. Remove the boat from the trailer for this check and the next one. If your trailer has rollers, spin each roller and roller arm. They should move freely. If they don't, smear the joints with grease. Replace worn rollers.

9 Bunks. Check the bunks for carpet wear, holes and tears. Replace the carpet on worn bunks and reseal loose areas with heavy-duty staples. If your trailer has adjustable bunks, tighten the nuts and bolts that hold the bunks in place.



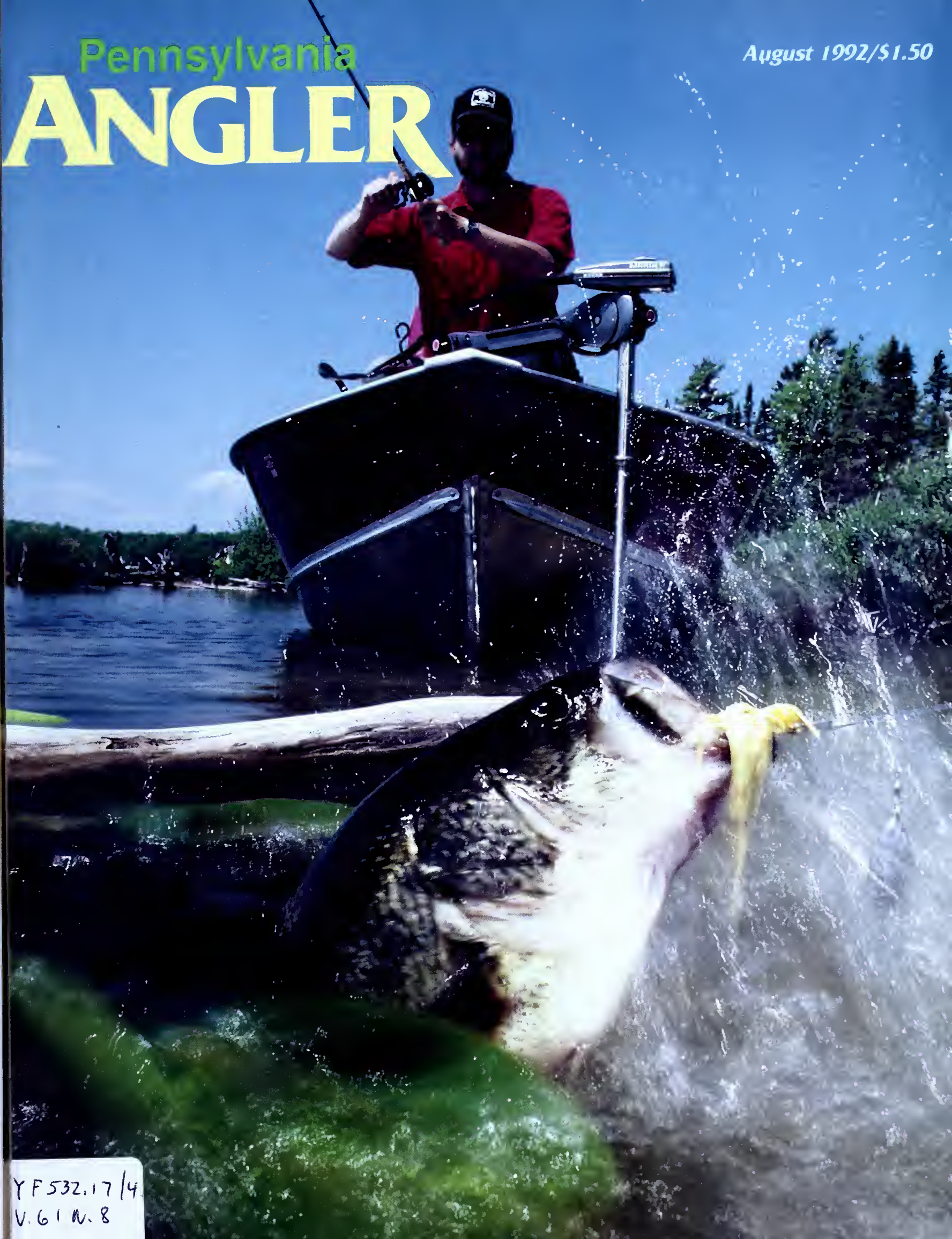
10 Leaf springs. Leaf springs often rust first on a trailer because galvanizing them takes the temper out of the steel. A little rust is probably OK. A lot of rust locks the springs together and prevents them from working properly. Leaf springs should curve upward. If they're flat, they've lost their capacity to suspend the trailer load, and you should replace them.



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Straight Talk

Pennsylvania Hosts East Coast Trout Managers



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

On June 23-25, 1992, the American Fisheries Society (AFS) and other sponsors held a three-day Trout Culture and Management Workshop at Penn State. The intent of the workshop was fourfold: (1) assess the state of knowledge on the East Coast; (2) develop new working relationships among the states; (3) learn to do jobs more effectively; and (4) encourage the participation of anglers in workshop sessions.

In Pennsylvania, the word *trout* means many things to many people. To sportsmen, it means a variety of fishing opportunities. Fishermen spend over 17 million hours a year fishing for trout on inland waters, making more than 6.7 million annual fishing trips. Commission staff estimates that 5.4 million trout are harvested each year and millions more are caught and released. To the Pennsylvania Fish and Boat Commission and its employees, *trout* means the kingpin of its many popular programs.

Over the past decades the Commission has gained wide recognition for its broad approach to trout management. Its coldwater fish culture system and trout stocking programs lead all but a few states, and its coldwater stream and lake classification system and stocking allocation methods are nationally recognized. The Adopt-a-Stream Program, with its major thrust toward habitat improvement and public access, serves as a model to many.

Pennsylvania is also recognized as the nation's leader for its Cooperative Nursery Program, which involves sportsmen directly in the many facets of hatchery creation, operation and fish production. Its bio-engineering approach to solving fishery resource problems has been a leader and the Commission's staff has been active in many professional organizations. The Commission has endeavored at every opportunity to acquire valuable coldwater stream frontage, and its acquisition of many of the Commonwealth's major spring water sources is the envy of most states.

Pennsylvania's approach to management of its many miles of coldwater streams is also noted for its ability to provide varied opportunities to the fishing public. Specially regulated areas provide a variety of year-round trout fishing experiences, and the agency maintains a statewide group of fisheries managers to monitor, evaluate and manage Pennsylvania's many fisheries. A very active law enforcement staff of waterways conservation officers and deputies patrols Pennsylvania's coldwater resources to protect this valuable habitat.

The Commission reviews every development and maintenance permit issued in the Commonwealth to ensure protection of aquatic life and the wetlands and waterways that support the fisheries. The Commission is also directly involved in efforts to upgrade classification of valuable coldwater streams. Pennsylvania has been a strong voice in efforts to control the acid precipitation problem that threatens many of our nation's valuable fisheries.

The Benner Spring Research Station has gained worldwide recognition for its many contributions to trout culture methodology and hatchery facility and equipment development. The station's efforts have made Pennsylvania a national leader in development of hatchery effluent treatment systems and its brood stock development and selection programs are internationally recognized.

Pennsylvania has a broad and successful trout management program, and it is fitting that the East Coast Trout Management and Culture Workshop was held in the heart of Pennsylvania. The sponsors planned an outstanding program and the workshop was a great exchange of information and a progressive step for East Coast trout fisheries.

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The Keystone State's Official Fishing Magazine

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Pennsylvania's Biggest Smallmouth Bass:

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The cover

Bass action in August means smallies in rivers and bigmouths in impoundments. On page 23 you'll find the lowdown on a western Pennsylvania hotspot, and on page 16 you can read about how to tempt smallmouth bass in waterways where you might not expect to find them. Turn to page 8 for an expert's secrets on how to catch smallmouth bass in the mid-state portion of the Susquehanna River. Highlighted on page 4 are two northeast Pennsylvania trout fishing gems. August also means catfish action, so for fishing information you can use right now on where and how to tempt channel catfish, please see page 20. If you're a fly fisherman, check out page 27, and if you wonder whether or not you're skillful or just lucky, turn to page 12. All anglers have a stake in the article on landowners and anglers working together, which begins on page 14. This month's front cover was photographed by Doug Stamm.

Two Jewels of Northeast Pennsylvania

by George Smith



Anglers can score on Bowman and Nescopeck creeks with size 16 black, brown and gray caddises, yellow and brown size 12 stoneflies, and Tricos in sizes 20 and 22. Black and red ants in size 18 work well, and Letort Hoppers tied with olive-green dubbing in sizes 12 and 14 match the natural insect. Spinner enthusiasts can take fish with size 0 offerings, and bait fishermen can do well with fathead minnows and hellgrammites.

When the weather warms and freestone streams turn tepid, some Pennsylvania trout fishermen begin to lament the passing of spring. They begin to miss the cold water, fast action and the major mayfly hatches of April and May.

Yet anglers in the state's northeastern counties have a little secret, and that secret is a pair of freestone treasures where anglers can readily catch trout throughout the summer.

When the sun shines bright and the "dog days" arrive, anglers in Luzerne and Wyoming counties quietly head for two of the finest streams in northeastern Pennsylvania. They pack their gear for a trek to Nescopeck Creek in Luzerne County, or they climb into waders and fish Bowman Creek in Luzerne and Wyoming counties. Both waters are scenic, they hold plenty of trout and they have a unique appeal.

Bowman Creek

Bowman Creek is the more storied stream. Bowman flows cold and clear from tiny Mountain Springs Lake high on Red Rock Mountain in the northwest corner of Luzerne County. It tumbles through splash dams that were used in earlier times to provide the Wyoming Valley with ice, and then it runs in a northeasterly direction through Luzerne and Wyoming counties and empties into the Susquehanna River.

Bowman rushes past little towns like Stull, Noxen, Evan's Falls and Etonville before merging with the sprawling Susquehanna downriver from Tunkhannock.

Bowman is a fisherman's stream, and its trout have become legendary in northeastern Pennsylvania. The water has a fishing history as rich as any central Pennsylvania limestone, and on a good day Bowman can be as productive as the freestone streams babbling through New York's celebrated Catskill Mountains.

From its headwaters near Ricketts Glen State Park, Bowman trickles through remote State Game Lands 57 as well as sections of private land before flowing into the little village of Stull.

A Pennsylvania Fish and Boat Commission stocking program has been undertaken at Mountain Springs Lake, which gives life

photo-George Smith

to the narrow creek, and stocking continues downstream, above Stull, at the Luzerne-Wyoming County line.

A dirt road parallels the creek as it runs from its headwaters to Stull. This provides easy access to the trout that cling to life in waters that can become terribly shallow during the summer.

Bowman grows in size as it tumbles down from Red Rock Mountain. It may be no more than a brook in the rugged woodlands, but by the time it reaches Stull the little creek widens to about 40 feet. The stream is stocked with brown and brook trout from about five miles upstream from Stull to the Susquehanna, a span of roughly 19 miles.

After it pours through Noxen, Bowman runs past farms, fields, towns and woodlots. Most anglers pursue Bowman Creek trout in this stretch.

Route 29 follows the stream from Noxen until it surges into the Susquehanna, and access points are plentiful despite some posted land.

There is parking near the first bridge that spans Bowman downstream from Noxen.

The water here is shallow whether you fish upstream or down, but oxygen-rich riffles keep trout lively throughout the summer. There are also a few deep holes downstream from the bridge all the way to another bridge, past the intersection of routes 29 and 309, where Route 292 connects with Route 29.

Specially regulated area

Parking is limited here, but the fishing is fabulous. Wade upstream and probe productive pocket water, or fish downstream, through a long, deep pool, and connect with a one-mile delayed-harvest, fly-fishing-only stretch.

The water under special regulation has been officially "adopted" by the Stanley Cooper Sr. Chapter of Trout Unlimited, and the chapter has made significant improvements to the streambed and shoreline.

This special regulation water, where trout can be creeled from June 15 until the last day of February, is mixed and interesting. Pocket water is plentiful, and there are fast, deep riffles that pose a challenge.

The infamous "Barn Pool" is relatively deep and can be incredibly still. The very best fly casters have been frustrated by great numbers of selective fish rising in the Barn Pool.

There is another parking area located below the Barn Pool, where tiny Marsh Creek trickles under Jenks Road to meet Bowman Creek.

Anglers who fish the narrow run where



photo: George Smith

Marsh Creek and Bowman converge have been pleased to land small, silvery rainbow trout, which suggests that a limited indigenous population of rainbows has become established in the stream.

A pleasant roadside rest area offers picnicking and parking for anglers who fish lower Bowman Creek. Located off Route 29, just below the intersection of Jenks Road and Route 29, the grassy rest area provides access to riffles, runs and a few sprawling pools where patient bait fishermen routinely pull trophy trout from Bowman waters.

One last bridge spans Bowman before it runs into the Susquehanna. It's located about two miles downstream from the rest area and

provides access to the final stretches of Bowman before the creek reaches the river.

Nescopeck Creek

If Bowman Creek can be considered something of a cosmopolitan waterway because it runs near a road and passes through several towns, then Nescopeck Creek, the "Nesky," in southern Luzerne County, deserves to be designated a stream of the deep woods. The Nescopeck originates in dense wetlands within State Game Lands 119, near Mountaintop. Here the creek flows at little more than a trickle, and the colorful native brook trout that inhabit these waters seldom reach legal size.

Two Jewels of Northeast Pennsylvania

The cold waters of the Nesky rumble in a southwesterly direction, and when they pass under Route 437, between the towns of Mountaintop and White Haven, the stream becomes fishable.

Honeyhole Road, which is paved but is not identified by signs, runs from Route 437 to Route 309 near the town of Drums. It parallels a nine-mile stretch of the Nescopeck that is largely contained within the boundaries of undeveloped Nescopeck State Park and State Game Lands 187. Most anglers limit their fishing to this nine-mile section of the creek.

Because the Nescopeck winds through game lands and a state park, there are plenty of access sites. Several well-worn paths and gated, ingrown logging roads lead south from Honeyhole Road to the stream.

Even though access and parking pose little problem, anglers should be forewarned: A lengthy walk is required to reach the Nesky's best waters. With one exception, at about the halfway point on the Honeyhole Road, the Nescopeck cannot be seen from any of the parking areas.

After the Nescopeck passes under Route 437 it flows through a mile of private property before reaching public land.

There, nurtured by little Creasy Creek, the overflow from Olympus Pond, and at least six tiny feeder streams tumbling down from Nescopeck Mountain, the Nesky takes on its regal freestone character.

Deep pools, fast runs

The stream remains relatively small, shallow and full of brook trout when it first enters public domain. Hike downstream through the pines, to where the waters are stocked, to find deep pools up to 30 feet wide and a good combination of brook and brown trout.

The pools are where most anglers congregate. The runs between the pools are fast and often difficult to fish because of overhanging vegetation, but they should not be overlooked. Often these chutes hold good numbers of fish that have not been spooked by angler traffic.

When you fish the Nescopeck it appears as if you are miles from civilization. The appearance is not deceiving. To the north there is nothing but Nescopeck Mountain. Mount Yeager casts a shadow on the Nesky's water from the south. To the east and west there is only the stream and the densely wooded valley. Anglers fishing the stream should not be surprised to find that they share the shoreline with deer, bear and turkey.

The Pennsylvania Fish and Boat Commission established a 2.4-mile delayed-harvest, artificial-lures-only stretch on the Nescopeck last January. Anglers should have no problem recognizing this section of stream. WCO David T. Corl reports that the water under special regulation is well-posted.

The delayed-harvest area of the Nescopeck runs near the Lake Francis parking lot, which is located roughly in the center of primitive Nescopeck State Park. Trout may be creeled from this special regulation water from June 15 until the last day of February.

Bait, tackle

Bowman and Nescopeck creeks have their origins at opposite ends of Luzerne County and are separated by miles of mountains and a few valleys. Yet they do share a common trait. Tackle requirements are similar on both streams.

Anglers who frequent the creeks enjoy success with baits, flies and lures, but clear water demands light lines and cautious presentations throughout the summer. Bait fishermen find that mealworms and small red worms impaled on tiny hooks prove productive. Let the bait tumble through the riffles in fast water, or add the lightest bit of splitshot and drop bait to the bottom of a pool.

Trout are seldom able to resist such offerings. This still-fishing method is especially effective in Nescopeck's deeper pools.

One angler I know fishes Bowman exclusively with hellgrammites, which are common in the nearby Susquehanna River. These large baits can attract some very large trout.

Fathead minnows are also productive. Hook minnows through a nostril and let them wander where they may. The minnow's lively action telegraphs a seductive message to the trout.

Salted minnows take trout from Bowman and the Nescopeck in the spring, when the waters are still very cold, but during the summer, the fish seem to prefer live bait.

Fly fishermen can take advantage of several hatches. Caddises are prolific, and size 16 black, brown, tan and gray "all-purpose" imitations cover all the bases.

Occasional sporadic stonefly hatches have been reported on Bowman. Tie a few in yellow and brown on a size 12 hook just in case.

The glamour mayflies, like Hendricksons and Quill Gordons, may be gone for the year, but moderate Trico hatches continue throughout the summer on both streams. Anglers need fine tippets, and tie the Tricos

on a size 20 or 22 hook.

Attractor patterns like the Adams, Royal Wulff, Humpy and Rat-Faced McDougal often produce fish when all else fails. Keep a few handy in sizes 12 and 14 for desperate moments.

Summer is the time for terrestrials on all Pennsylvania freestone streams, and fly fishermen should not visit either Bowman or the Nesky without an ample selection.

Ants are a must on both creeks. Tie them in black and red on a size 18 hook. Black beetles and crickets are productive where Bowman passes through woodlands, and they are a necessity throughout the entire length of the heavily wooded Nescopeck.

A little later in the year, Letort Hoppers can prove deadly where the Bowman shoreline is bordered by fields or tall grasses. I've seen green grasshoppers on the Nescopeck's shoreline. Use olive-green dubbing to tie size 12 or 14 hopper imitations to match the natural insect.

Because the Nescopeck is surrounded by small swamps, mosquito imitations can be deadly.

Small lures are a must on Bowman and the Nescopeck. The smallest Rebel or Rapala silver minnows are proven fish-catchers, as are tiny Rooster Tail, Panther Martin and Blue Fox spinners in size 0. If you can locate spinners with a size 00 blade, so much the better.

Fishermen using bait or lures should have ultralight equipment. A rod that is five feet, six inches in length is plenty. Smart anglers stick to four-pound-test monofilament. In summer, if the water is extremely low and clear, two-pound test might be needed.

Bowman Creek is wide and open enough to accommodate a nine-foot fly rod, but I use a shorter rod on the Nescopeck. Overhanging tree limbs on the Nesky can make anything but roll casts problematic. Use a rod that measures 8 1/2 feet. Better yet, fish with an eight-footer.

Six-weight fly line has become the all-around standard for fishing in Pennsylvania, but a five-weight line is more than adequate for these two streams. The lighter line creates less disturbance on the water.

For a real thrill and ultralight action, use a fly outfit built to accommodate a four- or three-weight line.

Bowman and Nescopeck creeks have many virtues. Both hold vast numbers of trout, they are incredibly scenic and they have miles of water open to public fishing. Both have special regulation areas, so be sure to consult the *Summary of Fishing Regulations and Laws 1992* that accompanies each fishing license.

Lastly, both waterways have become something of a mecca for northeast Pennsylvania anglers intent on catching trout

when the cool spring weather fades and summer arrives.



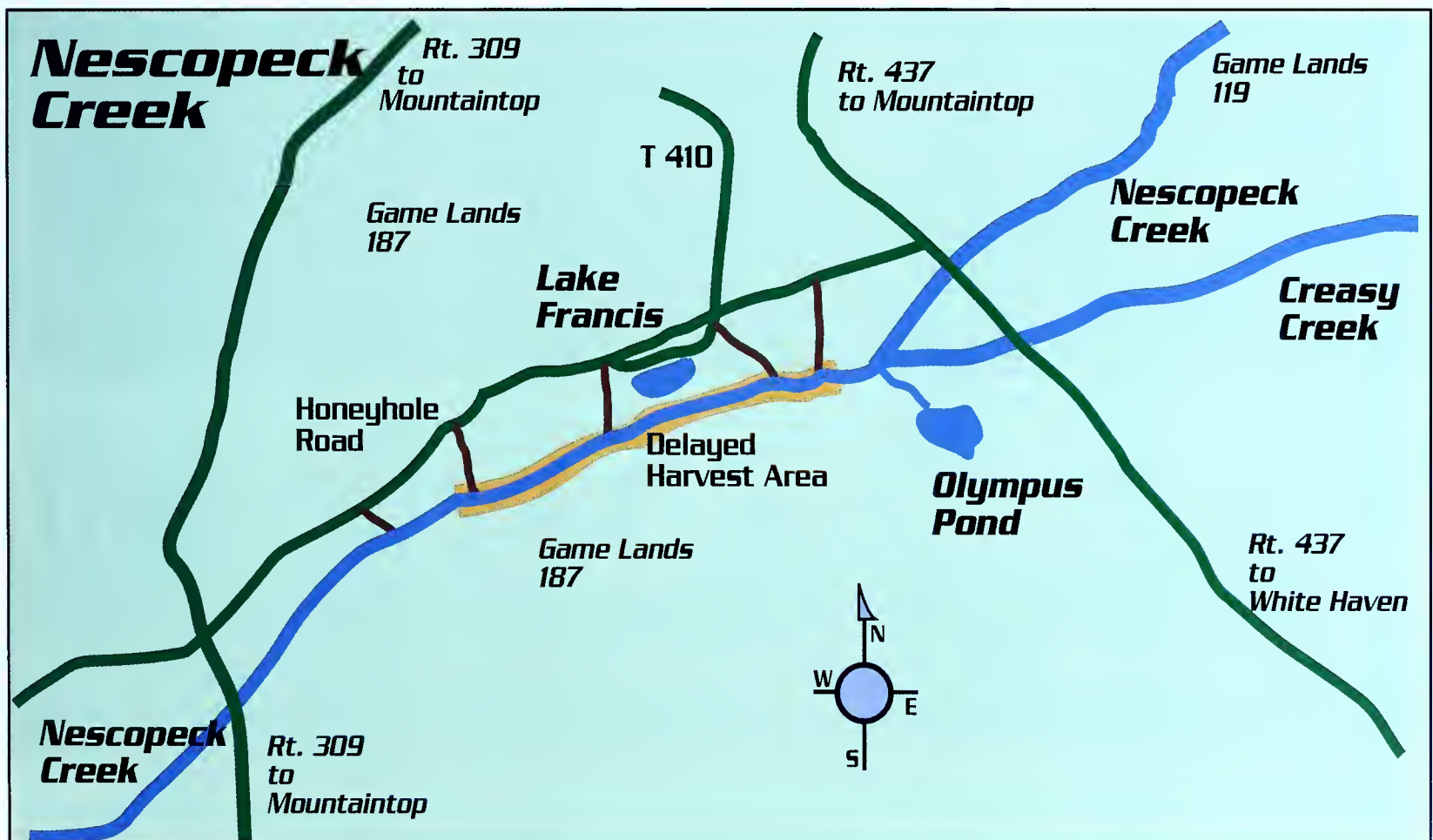
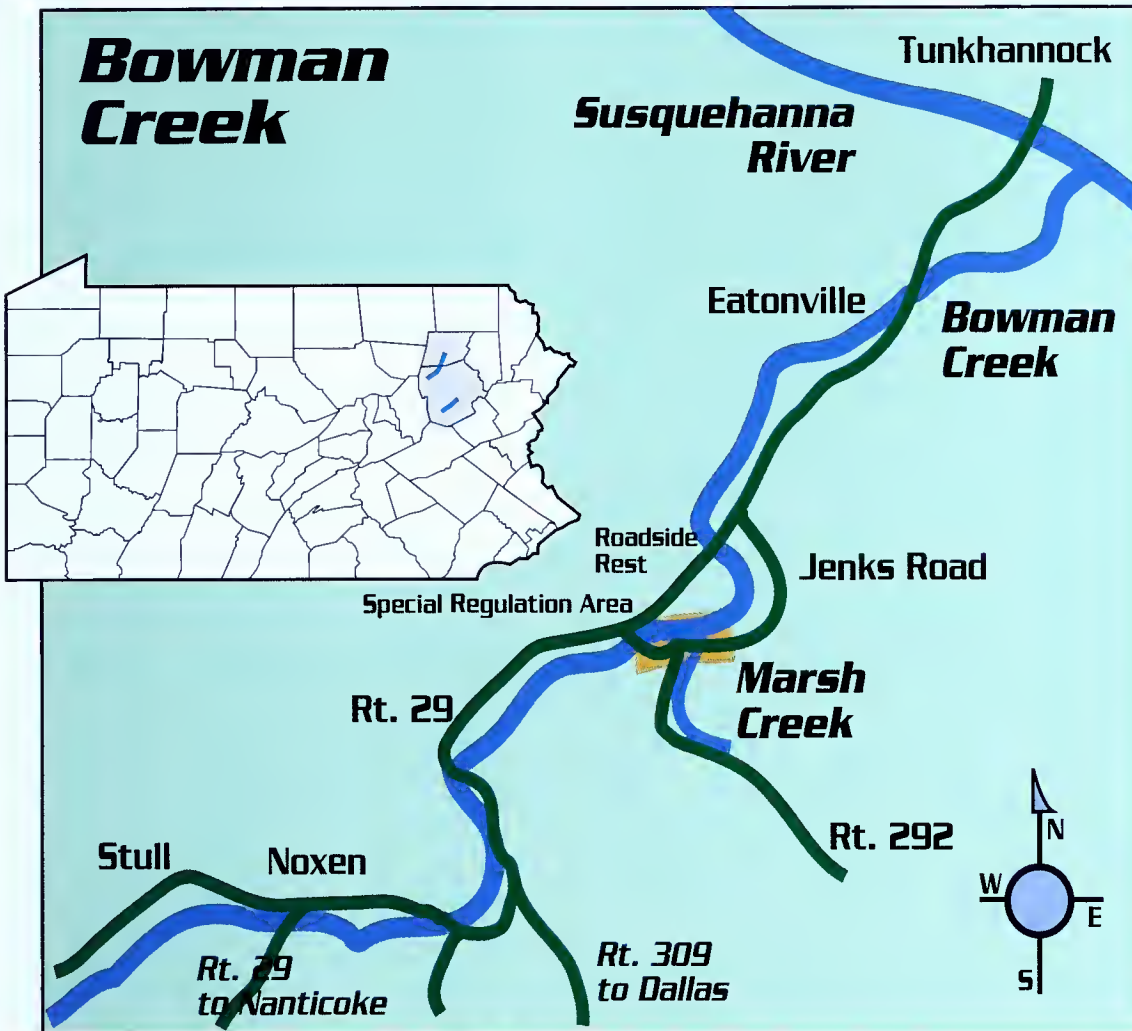
Camping, anyone?

Anglers who would like to enjoy a little camping with their fishing will not be disappointed with either Bowman or Nescopeck creeks. Both waterways have state parks nearby where you can set up a tent or park a motorhome.

If you plan to fish Bowman, camp in Ricketts Glen State Park, near the town of Red Rock. Ricketts Glen has 120 family campsites as well as 10 cabins that may be rented.

In addition, 254-acre Lake Jean at Ricketts Glen State Park can provide some interesting fishing for warmwater species. Call the park at (717) 477-5675 for more information.

Nescopeck Creek passes through Nescopeck State Park, but the park is undeveloped and camping is not permitted. Camping is allowed at nearby Hickory Run State Park in White Haven. Hickory Run has 381 family campsites. An added bonus is good trout fishing in nearby Mud Run and the Lehigh River. Call (717) 443-9991 for additional information.—GS.





Summertime Smallmouths *in the* *Lower Susquehanna River*

by Bob Clouser
photos by the author



Pennsylvania anglers are blessed with the finest smallmouth bass-producing river on the East Coast, and possibly the best in the U.S. The Susquehanna River runs over 400 miles, draining some of the most fertile land in the East. The main stem, sometimes called the North Branch, is joined near the town of Northumberland by the West Branch. The main stem flows south to its influx into Chesapeake Bay. While making the trip south through the state, many structural elements of supporting habitat of the smallmouth bass change with each mile of the journey.

Prime area

I rate the area from the mouth of the Juniata River south to Holtwood Dam as a prime productive area for the August angler. This river section's many grass beds and shallow gravel bars, combined with deep-water areas between its many lava ledges, protect and produce more smallmouth bass than any other section of the river.

Anglers fishing this 50-plus-mile area should be aware of the two sets of regulations governing these waters. In a section of river 38 miles long from the Dock Street Dam in Harrisburg downriver to Holtwood Dam, smallmouth bass must be 15 inches or larger before they can be harvested. The harvest limit is four per day.

It's 1:30 p.m. and the air temperature is 84 degrees. The sun is bright overhead and the sky is clear with the exception of a few thunderhead clouds building far in the west. I position the boat upstream of two shallow gravel bars parted by a 50-foot-wide four-foot-deep trench lined with a few large boulders and a series of ledge rock—ideal habitat for smallmouth bass. After the disturbance to the area created by the approach of the boat ceases, we drift. My angling friend casts his lure to a large rock just under the surface. We watch the lure sinking slowly in the clear water of the Susquehanna River, and the large dark-bronze form of a smallmouth bass rises slowly to inhale the lure.

After catching and releasing eight bragging-sized bass from the area, my angling friend ponders the old wife's tale that bass don't bite during dog days, and he can't believe the fishing could be this good, just because it's August.

Pennsylvania anglers are blessed with the Susquehanna River—the finest smallmouth bass-producing river on the East Coast, and possibly the best in the U.S.

There is also a closed season during the middle of April to the middle of June. These regulations apply to all waters of the state. The river north of the Dock Street Dam has regulations of a 12-inch or larger harvest size and a six bass per day legal limit.

The August angler should look for rock formations, islands and weed beds surrounded by or close to water depths of three feet or more. Smallmouth bass use the deeper water for protection from the glaring rays of the sun. As their need to eat increases, they move to areas of heavy structure, usually in shallow water, inhabited by minnows, crayfish and other food. The angler familiar with these conditions is usually successful in hooking a number of these feeding bass.

Sunlight secrets

Smallmouth bass have no eyelids, nor do their pupils dilate for protection from indirect or direct sunlight. Anglers should use this trait and adjust their fishing techniques accordingly on bright, sunny days. The sun's position during August, especially at high noon, does not cause glare on the water's surface if the water flow is moving from west to east. The river has many bends that cause changes to its southerly flow many times over the entire length.

Do you ever wonder why bass feed during certain periods at one depth and other times at another position? Sunlight glares in their eyes at certain times when the sun is at different angles. This could affect their ability to see or focus on objects at different levels in the water. Bass feed most of the time in shade-covered areas, while others in sunlit areas do not feed. Hold something in front of your eyes while facing the sun, and you will not be able to see it.

For a longer productive evening of fishing, select a bend of the river with the shoreline or a mountainside protecting the western shore. This location shades the water early while the eastern shore is still exposed to glaring light. Selecting an area offering these conditions and using the outward moving shade line should give you more productive fish-catching time than fishing a brightly lighted area.

Storms

Other conditions affecting August angling are algae, weather fronts, and runoff from thunderstorms. Storms are a condition we can't control. If you are on the water during approaching storms, you should leave the water and seek shelter. Usually after a storm has passed, smallmouth bass go on a feeding frenzy. If you have an opportunity to witness this, a shallow-running lure should be the right choice. The Susquehanna River, wide with ever-changing

currents, is not usually affected by short-term storm runoff. Some areas affected are below tributaries or sections of the main current flow, not necessarily along the shoreline. Fishing the edges where the cloudy and clear water mix is a good choice.

Water clarity during August, especially very clear conditions, often creates difficult fishing. A long cast, a fast retrieve, and a quiet approach should be added to your tactics.

Algae

Algae conditions should be approached with still another tactic. Green or brown algae usually blooms when the river temperatures rise above 80 degrees. When the algae bloom is heavy and the day is brightly lit by the sun, a reflective condition exists under the surface of the water. Lures or bait should be fished very slowly. This reflective condition, caused by particles of algae drifting and mixing with the water, drastically reduces the range of vision or the distance a bass can spot a lure. When these algae conditions exist, choose overcast days or faster-moving areas such as rocky riffles, or plan your fishing outings near nightfall.

Algae conditions usually lessen as water temperatures drop, either from cool summer rains or the approaching fall season.

Lures

Whatever your choice of fishing tackle may be, spinning, bait or fly, August usually means a change, not only in tactics, but in lures, including colors and sizes. Most of the food available to bass have had at least three months to grow. Minnows of all kinds, crayfish, insects and some shoreline inhabitants like mice and frogs have attained larger sizes. To entice a strike from a larger bass, offer larger baits, lures and flies. Using small lures usually tempts only small bass.

Colors of effective lures vary. As the sizes of baitfish increase, so does the amount of reflection or flash from their sides. A bright-silver or chartreuse lure could add to your success in August.

Add some unusual but effective methods of retrieving lures to your August tactics. A successful method for surface fishermen is to let the lure lie motionless after your surface lure lands on the water's surface. Bass are very easily spooked when the water is low and clear. The sound of the lure hitting the surface usually temporarily causes a bass to scurry for cover. After a moment the curiosity impulse of the bass usually causes it to investigate. If your surface lure is still in the general area where it made contact with the water, your chances of a strike are greatly improved.

Fly rod anglers using a similar method with large streamer flies have improved their mid-summer catches. After making a long



cast with a streamer, pause and let it sink slowly. Most strikes occur as the fly falls or sinks. Smallmouth bass have a habit of swimming up to the prey and inhaling it. If a strike does not occur at this time, strip the fly with a fast retrieve for about three feet, and then let it pause and sink slowly again. This is a very effective technique for enticing strikes from dog-day smallmouth.

Access

Access to this 50-plus-mile section of the Susquehanna River is available at all Fish and Boat Commission access areas. This section of river has much private access, some of which let you put in for a fee. The following access points are publicly owned ramps with free access and parking.

The section of the river from the influx of the Juniata River downstream to the Dock Street Dam, located near Harrisburg, has very limited public access for boating, but wade fishing can be done virtually anywhere when low water conditions permit. Use good judgment when attempting to wade any waterway, especially if you are not familiar with the area. Cartop boats, canoes and shallow-draft boats are a must because of shallow-water conditions during mid-summer.

At the western end of the Rockville Bridge, in Perry County, you can put in at the Marysville Borough Access, located on South Main Street at the Rockville Bridge. I recommend cartop boats only here.

Access from the east side of the river is easy at the Fish and Boat Commission's Fort Hunter Access, located north of the Rockville Bridge on North Front Street, Harrisburg. Use the Fishing Creek exit from routes 22/322 and drive toward the river. Turn left at Front Street and you'll see the access on your right.

Anglers using this section of the Susquehanna, especially wade fishermen, report fantastic catches of smallmouth bass. August fishing is rewarding by locating areas where grass beds and rock bars are next to deep-water pools. In early August, insect hatches are abundant and offer excellent evening fishing.

South of Marysville in Cumberland County in the town of West Fairview is the Commission's West Fairview Access. Mid-summer conditions at this access call for shallow-draft boats and cartoppers. Smallmouth abound in this ledge-laden section.

Just south of West Fairview is the Harrisburg City Island Access, located on City Island. This section has areas of deeper water and is also used for high-speed boating and water skiing.

Just south of the Dock Street Dam to the York Haven Dam lies another section of high-quality habitat. Public access is limited to the southern end of this area. Even with this limited access, this is the most heavily fished section of the river. Private clubs and two large marinas are located here.

The Fish and Boat Commission has two access areas for this section. One is located in Dauphin County at Middletown near the south end of Union Street. Shallow-draft boats are a good choice because of low-water conditions. The west bank near the town of Goldsboro in York County has a very good access area with plenty of parking and an excellent ramp. This ramp puts you on the backwaters of the York Haven Dam (Lake Frederic). On weekends, fishermen should try the north end of the pool, below the Middletown riffles. Many cabins fill the islands and many boaters spend their summers here. August anglers should fish close to the many islands located in this area and around the many large rocks in the north end of the pool.

The area from below the Dock Street Dam downriver to the Holtwood Dam, a distance of 38 miles, was chosen by the Fish and Boat Commission to become a high-quality fishery for large bass

in the Commission's Big Bass Program. This newly established area could become the best smallmouth bass fishery in the East.

The section above the Middletown riffles to the Dock Street Dam calls for shallow-draft boats for safe navigation. Mid-summer fishing is productive around the many small islands and numerous grass beds. Rock ledges abound in this area. Insects are plentiful in these shallow areas, offering the surface fisherman many enjoyable evenings.

The stretch below York Haven Dam to the dam at Safe Harbor offers diverse fishing. Anglers use many methods. Conditions differ from fast-flowing water just below the dams to riffles, pools, islands, grass beds and slack water in the Lake Clarke Pool above the Safe Harbor Dam.

Techniques include bouncing hair or plastic jigs on the bottom in the long, deep, fast sections to casting shallow-running plugs around and over the many gravel bars and grass bed-covered sections. Long, deep channels such as the one that forms the Accomac Pool at Accomac, York County, offer good holding water for those big bass during the hot days of August.

Evening fishing gets productive around dusk near the piers of the Route 30 bridge. The bottom end of the Columbia riffles creates enough oxygen during the hot summer months to harbor plenty of bass.

The Lake Clarke Pool above the Safe Harbor Dam is used by high-powered boats and water skiers. You can get in on good fishing along its rocky shoreline and also along its many islands of the upper pool. Smallmouth bass in this area usually travel with the abundant schools of baitfish. Locating these schools of baitfish can be beneficial toward your success.

On the York County side of the river is the Wrightsville Access along Route 624 just below the Route 462 bridge. This is the extreme end of the Lake Clarke Pool and is suitable only for small boats. There are two public access ramps below this one at Long Level. These and some of the others on both sides downriver are put in by Pennsylvania public utility companies.

On the Lancaster County side, from the York Haven Dam downriver, you can use the Falmouth Access, along Route 441 below York Haven Dam. The Marrietta Access, located off Route 441 south of town, puts you on the Accomac Pool. This area should also be used only with shallow-draft boats. The Columbia Access just below the Route 30 bridge in Columbia is limited to small, shallow-draft boats and has limited parking.

Below Safe Harbor Dam to Holtwood Dam, the accesses put you in Lake Aldred—fast, rocky riffles below the dam to placid water backed up by Holtwood Dam. The PP&L access at the mouth of the Pequea Creek just off Route 324 puts you on this pool. The opposite side of the creek also offers another put-in marina.

Gizzard shad are abundant in this section. Smallmouth bass ambush the schools of shad from the many island points that dot this area. The fast-water outflow from Safe Harbor Dam offers the boating angler excellent mid-summer angling.

The most important part of any fishing or boating outing is safety first. Do not venture into strange waters without the proper safety equipment, and stay away from all dams—either the upside or the downside.

The dog days of August can be some of the best days of the fishing season. With a little change in tactics, lures and locations that are just a little different from the other months, you could catch the trophy of your life.

The Susquehanna River is not only the best. It's the only one we have. Respect its beauty and protect its fish and it should always let us enjoy its treasures.



Luck

by
Bruce Ingram

In 1891, Mark Twain penned a short story called "Luck." It was all about the renowned Lieutenant-General Lord Arthur Scoresby, who though a total and absolute fool, managed to win a miraculous succession of battles through pure luck. In fact, Scoresby was such a dolt that his major triumph came because he mistook his right hand for his left, thus setting off an incredible chain of events that led to total victory for his side. All of Scoresby's success was attributed to his being just plain lucky.

A hundred years later, we are still fascinated with the concept of luck, especially in regard to fishing and specifically in regard to fishing lures. We speak of having lucky lures that really produce for us, having unlucky days afield because the fish refused to take our artificials, and having good fortune because the fish mauled everything we threw at them.

I don't believe in fishing luck or in lucky lures. Instead, I believe that our decision to employ certain artificials is based on five factors: Ignorance, stupidity, habit, confidence and knowledge. Understanding those factors and how they affect our decision-making on which imitations to select can help us catch more and bigger fish.

Awareness

First, the ignorance and stupidity factors are actually intertwined. Let's say an angler plans a trip for walleyes up to Lake Erie. Having a limited knowledge of both marble-eyes and Erie, he is nevertheless confident about doing well. After all, he almost always does well when he fishes Lake Arthur, his home lake, for largemouths.

After arriving at Erie, this sportsman begins pounding the shoreline with float-

ing-diving minnow plugs. It's a bright, warm sunny day and not surprisingly our hero fails to catch any of these light-sensitive fish.

Stupidity: Not hardly—just ignorance. Being unfamiliar with a gamefish and a certain body of water is no sin. This angler just did not realize that walleyes are not going to chase minnow plugs in the shallows on a sunlit day. The correct lure choices would have included any of the Alphabet lures such as Bomber Long A's or Cordell Big Os and the method would have been to troll offshore humps, bars and ledges in the trenches.

Last year, for example, this approach resulted in anglers nailing scores of eight- to 10-pound walleyes.

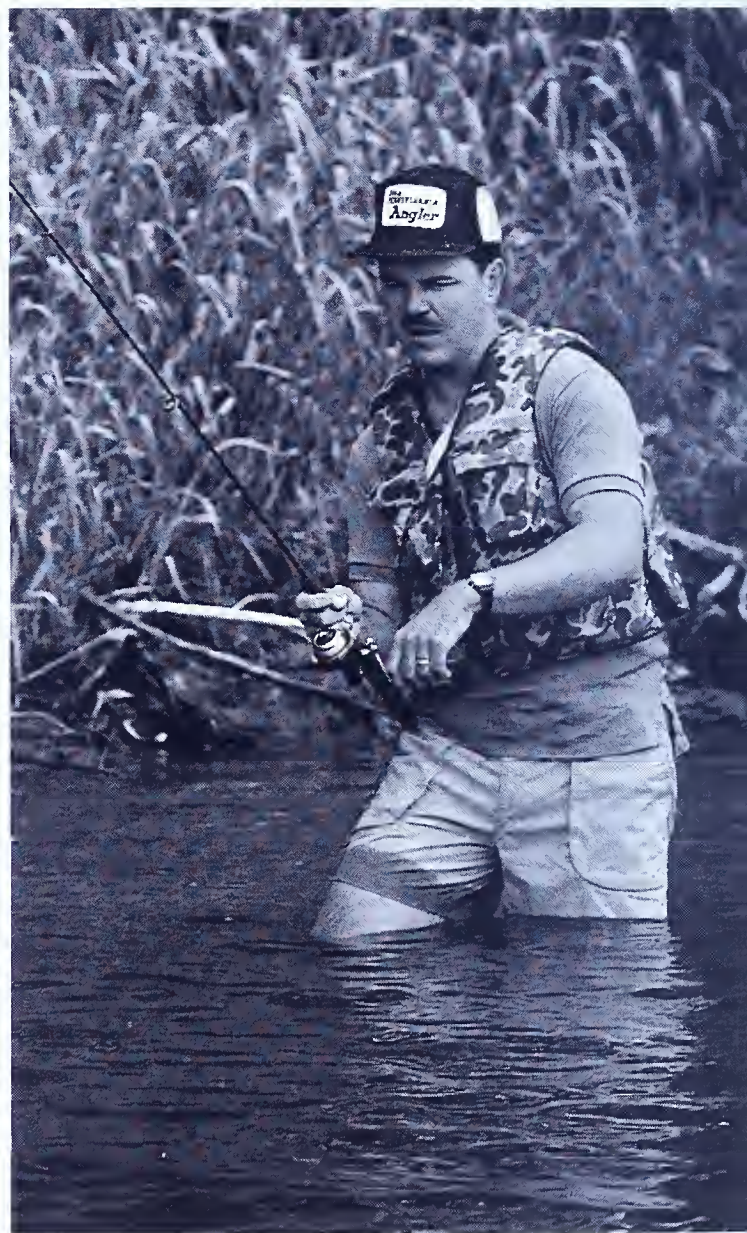
Now if this fisherman returned to Erie on numerous occasions and didn't change his gameplan—that's stupidity. I know about that affliction as well. For instance, several years ago a friend and I went on a July jaunt for river smallmouth. My favorite all-time stream bass lure is a Rapala floater-diver. It's a great lure for smallmouth that are actively feeding and also for bass in a neutral mood.

However, the fish that day had been turned off by a cold front. My fishing companion quickly realized that fact and switched from plugs and crankbaits to worms and grubs. He worked these offerings deep and slow right next to cover like rockpiles, logs and submerged brush. He caught smallies (boy, did he ever) despite the terrible conditions.

Meanwhile, I stubbornly cast my minnow imitations all day long, hoping for the bass to shake off their doldrums and give me one of those heart-pounding surface strikes. I got one strike the entire day—from a five-inch bass. It came up and kissed the lure, and after I "played" the fish for a

few seconds (a dink bass doesn't take long to use all its energy) the little creature flipped off the lure. Humiliation knows no bounds when you lose control of a five-inch smallie.

Do I deserve your sympathy? No way. It was pure stupidity on my part to keep hurling lures that had no chance of succeeding on that particular day.



Lures aren't lucky. They are merely tools and these tools perform best under certain situations. My using a Rapala on that day was like trying to hammer a nail with a screwdriver. Grubs and plastic worms, though, are super artificials to use when stream bass are down in the dumps, and working lures close to cover is the way to elicit strikes.

Ignorance, stupidity, habit, confidence and knowledge—understanding how these factors affect our decision-making on which imitations to use can help us catch more and bigger fish.

Flexibility

Habit is another factor in the way we go about choosing lures, and again, it's a poor reason to select a certain lure. This time, an angler decides to travel to a northeast Pennsylvania pond that is known to contain good numbers of bluegills and other panfish. She has fished there before on a number of occasions and has always done well by tossing red ant imitations with a fly rod.

On this outing, however, for some strange reason the 'gills won't touch a red ant. The fish aren't turned off by a cold front, the water temperature is right, and the angler notes actively feeding fish from time to time. Out of habit, though, she loyally sticks with her red ant instead of experimenting with a variety of flies.

Finally, late in the day, she starts to entice a few panfish and is able to take home a few for dinner. She feels justified in her faith in the ant. After all, she caught fish with it eventually.

This individual shouldn't feel so smug. She has actually blown the better part of the day by a foolish reliance on one fly. During the day, the bluegills probably clued in on a variety of prey. Part of the day, they might have been foraging on nymphs, later they may have turned to scuds, and finally late in the day (the time when the lady caught fish) the panfish indiscriminately fed on terrestrials.

This person's trip would have been more fruitful if she were not a creature of habit. Bluegills, like other fish, often change their menu items during the course of a day. And to be consistently successful, we need to be as flexible in our lure choices as the fish are in their forage items.

This flexibility on artificials should also carry over to using live bait for trout. Although some Pennsylvania trout streams are restricted to fly fishing only and/or artificial lures only, the use of live bait on most other streams is allowed. I have never understood why some long rodders look askance at those who use live bait.

I would rather bewitch a trout on a fly than by any other method, but I also relish just catching fish. For example, last June I fished a mountain stream with a good friend who almost always fishes for trout



with minnows. His methodology is simple. He runs a size 8 hook through a minnow's mouth, clamps on some splitshot (the exact amount depending on the current) about 18 inches from the hook leader and swivel, and then he works runs, pockets and eddies.

My buddy landed three rainbows and lost several more before I decided that being a "purist" was not in vogue that day. After I switched over to his game plan, I, too, began to catch fish. Some days a size 20 gnat is the ticket. Other days a spinner is best, and sometimes it's prudent to slip the fish a minnow.

Although it may not seem so at first, there is a great difference in deciding to stick with a lure because of confidence instead of habit. For instance, this time an angler travels to the Susquehanna River for a day of small-mouth bass fishing. It's the third day after a cold front has passed through. The fisherman knows that at this time of year—and because of the front's passage—the mossybacks will be in a neutral feeding mood.

He also is aware that the Susquehanna's smallies are most likely in deep water, say seven or more feet, and that they are hanging fairly close to dropoffs and ledges. The reason he knows these things is because he has dealt with similar situations before. The activity level of the fish precludes their chasing a lure, but they will attack an artificial that is properly presented near their holding areas.

Confidence

In short, on this day our outdoorsman has actually figured it out. He selects, out of confidence, a jig 'n pig, a four-inch dark-colored plastic worm, and a crayfish-col-

ored grub as his lures for the day.

He goes several hours without fooling a single smallie. But with confidence he remains faithful to his game plan. Finally, this sportsman begins to catch bass—not many, perhaps a few every hour or so. But by the end of the day, he has caught and released a dozen nice bass—all going 2 1/2 pounds or more. He checks the local tackle shop and finds that no one has done as well as he has. His confidence in his game plan was the key to his success.

Knowledge

The last factor in determining lure selection is knowledge, and it surely is the most important one. Through countless hours on our home-water rivers and lakes, a knowledgeable angler knows that he must sort through a long list of variables to determine which imitation to tie on. The successful angler considers water temperature, time of year, sun penetration, water clarity, frontal passages and the peculiarities of an individual waterway.

This angler also knows not to leave home without certain lure types. Plastic worms and grubs, minnow plugs, crayfish crankbaits, jigs and spinners are always in his tackle box. And this individual knows that on any given day, five lure types from that sextet won't produce, but that almost certainly one of them will. And lastly, this individual knows that he should always be aware of the live bait option.

Mark Twain was known for his penetrating writing style, and his Scoresby was definitely a fool. Luck may have saved the day for Twain's character, but fishing luck and lucky lures should never be counted on to save your angling trips.

Working Together

by Mike Sajna

Acid rain, industrial dumping and mishaps that kill thousands of fish in a single swoop seem to grab most of the headlines. And such things need to be addressed by everybody wanting to ensure clean water and quality fishing, or any fishing at all, for future generations of Pennsylvanians. Life is short, only the earth is forever, the Indians often said. We are only custodians of the earth, not owners.

Still, pollution is not the main reason the Fish and Boat Commission removes at least a few streams a year from its list of approved trout waters. The cause for that loss is posting by irate landowners, and the fault lies with fishermen themselves. Ask any waterways conservation officer, or active member of an angling club working to improve fishing in an area, about the trash, broken fences, open gates, illegally parked vehicles and poachers they encounter every season.

"The actions of our angling population cause us more problems day to day than some of the environmental issues," says Dick Snyder, chief of the Commission's Division of Fisheries Management. "I think to a degree it's more of a serious problem than some of the catastrophic events we can treat."

But the situation doesn't need to be that way. With a little consideration and effort on the part of fishermen, Pennsylvania could keep all its present fishing water and maybe even add to it. Anglers who choose to get involved may even find landowners thrilled to work with them and keep their properties open.

"Fortunately, in this area we have people who are interested in maintaining fishing," says Dick McDonald, a landowner in Ligonier, Westmoreland County, about his experiences with the Forbes Trail Chapter of Trout Unlimited. "I'll just say it's been a blessing to me. They've really helped me. They've been an asset. They saved me some money, saved me some time, worry and work—and countless hassles with the bureaucracy."

Erosion problem

McDonald's involvement with Forbes Trail began back in the late 1980s when he approached Tom Evans, another resident of Ligonier and chairman of the chapter's Stream Improvement Committee, about the club helping him with an erosion problem. At the time, Forbes Trail had already been working for about four years on Loyalhanna Creek's delayed-harvest project, a portion of which flows through McDonald's property.

Using designs provided by Dave Houser, chief of the Fish and Boat Commission's Adopt-a-Stream Section, and Eugene Banker, Jr., chief of the Property Services Division, chapter members had already constructed several stream deflectors and stabilized large stretches of bank, including one bend that was eroding some three feet a year.

"A landowner who has any kind of a stream problem—I can't see why he wouldn't approach the local fishing club and say, 'let's see what we can do together.'"

With the assistance again of Houser and Banker, Evans and other Forbes Trail members developed a plan to cure McDonald's erosion troubles. The club spent more than \$1,250 on the project in 1989 and another \$2,500 in 1991, money the club raised locally through banquets and other fund-raising projects.

Those figures represent a direct savings to McDonald of \$3,750, but they still tell only part of the story. The money was used almost entirely to purchase stone. Club members volunteered their labor and even equipment. McDonald also kicked in the use of his bulldozer and other stone he had lying around his property. Nobody bothered to determine how much labor and equipment for the job might have cost if the farmer had undertaken the work on his own, but McDonald says he easily saved "several thousand dollars," a very welcome savings in these days when farmers need to watch every dollar if they are going to survive.

Even more than money, though, McDonald found that working with an organization such as the Forbes Trail Chapter helped him avoid the bureaucratic nightmare of obtaining permits for the work from various governmental agencies.

"With the blanket permits that the Fish Commission has, you bypass filling out all those forms," Evans says. "For an individual to go down there and try to stabilize a bank, he would have to get involved with soil conservation people, the Department of Environmental Resources, the Corps of Engineers, and the Fish and Boat Commission. All those things that he would have had to do, TU, through the Fish and Boat Commission, does for him."

To obtain help from Forbes Trail and the Fish and Boat Commission, McDonald had to sign an agreement keeping his property open to fishing. But it is a decision he has never regretted.

Farmers can't lose

"As far as giving people permission to fish, I can't see how a farmer can lose," he says. "First of all, you're going to have poachers come in, anyway. If you give everybody permission, I think you create some good feelings and open it up to some good, legitimate fishermen. And they'll help police the bad fishermen. Really, it's a win-win situation."

Contrary to what many landowners may have experienced, McDonald reports he has not had a litter problem on his land. Part of the reason may be that his side of the Loyalhanna is opposite the road, so anglers must either walk or wade the stream to reach it, which tends to cut down on the lazy fishermen who might litter.

Keeping the property open has also resulted in courteous anglers picking up litter. Forbes Trail also helps by sponsoring an annual cleanup day the weekend before the opening of trout season in April. Evans points out that there are areas along the stream that are posted which the club bypasses during its cleanup because it is not open to fishing.

"We usually pass those by because we don't want to get thrown out," he says. "People who keep their lands open are going to reap the benefits. There's no question about it."

As far as breaking fences and leaving gates open, McDonald says that every farmer has to judge those problems for himself. He has had no problems and believes fishermen will respect fences and not open gates.



Club members raised some \$3,750—saving the property owner that amount—and members volunteered their labor and equipment to work on the project.

McDonald, who is presently thinking about selling his property, is so happy about the partnership he has developed with Forbes Trail, and local fishermen in general, that even though he can't legally make such a restriction part of a sales agreement, he plans to urge anybody who might buy the farm to extend the agreement he signed and keep a right of way along the stream for anglers.

"I think if other clubs could do the same thing in their communities, more water would stay open," he says. "And let the farmers know about what they do. Maybe a lot of farmers are not aware of the benefits they can get by working with a club. If other farmers knew they could receive help from Trout Unlimited or other clubs, they would probably agree to do things like that."

"But I am sure that depends on what kind of club you have," he says. "If you have a club that isn't aggressive, then they're not going to do it for you. And you don't have that aggressiveness in a lot of clubs. I just think it's a good environmental effort, and one good turn deserves another."

Evans points out that a lot of people look at sportsmen's clubs as "self-interest groups" concerned mainly with supporting their own interests. He says they are often not aware of some of the good such clubs do beyond the narrow category of sports. The work Forbes Trail did on the bank that was eroding at the rate of three feet a year, for instance, saved the local utility company from having to move one of its poles and the Loyalhanna Watershed Association from having to relocate a hiking trail.



"Any landowner who wants decent stream improvement is going to become totally frustrated with the bureaucracy," McDonald adds. "To have somebody like Trout Unlimited go to bat for you, it's an unbelievable source of help because they can get it done quickly. Any landowner who has any kind of a stream problem, I can't see why he wouldn't approach the local fishing club and say, 'Let's see what we can do together.'"

ANGLER

Smallies *in Trout Water*

Even though it was only August, summer had already completed its usual work on the fabled trout water stretches of the Loyalsock Creek. A favorite pool near the Lycoming-Sullivan County line lay motionless, low, clear and warm. Except for the deep holes on the lower stream that attract swimmers, the creek was completely deserted. Months before, when trout season was younger and thoughts of thousands of stocked trout were sharper, most of the best water was standing room only. Not now.

I started at the base of a small riffle while my angling partner Tom moved farther downstream into the pool. I could see him slip into the still water as quietly as possible. My fly rode the current in front of a group of boulders only a few times when Tom's voice broke the silence. "Got one...it's a nice one," echoed across the water.

Tom held his rod high as he quickly took in line to play the fish from the reel. The light tip throbbed as the fish bore down and moved into deeper water. Even though Tom was using a size 12 White Wulff, he had

by Dave Wonderlich

it tied to a 12-foot leader tapered to a 5X tippet because of the smooth, clear water. It was not the tippet to use to horse a good fish. He had plenty of time, there were no obstructions, and the fish steadily but grudgingly came to him.

With his rod held back, Tom leaned forward and grasped the fish with his free hand. It was a smallmouth, a keeper, dark green, solid and still as feisty as when it first hit. With a light twist of the fly, the fish was free of its counterfeit meal. Tom admired it one last time and bent to the water, and the bass disappeared into the pool's depths.

It was an evening neither of us will soon forget, and I believe it was the type of fishing experience more and more anglers are trying to find. We hooked and released several 12-inch-plus smallmouths along with a score of good-sized panfish. Just before dark a lone brown trout managed to leave its spring

seep at the base of a large rock outcropping and hooked itself on my size 16 white midge. We also saw several smallmouths in the 18- to 20-inch range that had their minds on other things besides our offerings. There are always a few of those wherever we fish—I'm sure they are part of the reason we keep going back.

My first experience of bass fishing trout water took place 24 years ago on a stretch of upper Big Pine Creek in Lycoming County. I had been fishing Slate Run, catching and releasing a few trout, but fishing the run was very touchy because of the low water. Patience and stealth were needed that summer day, and that day, I'm afraid, my patience had run out. Big Pine with its big and forgiving water called and my brother Mike and I were on the creek in 25 minutes.

What a difference. Big Pine was not as clear, cool or refreshing, but it was good, big trout water, had great holes and pools, and its own share of great scenery. Willows lined one bank and pines the other,







Photo-Dave Wonderlich

and between was a large expanse of still water. A shadow from the steep mountain on the opposite bank ran parallel to the shore.

Mike worked the upper stretch, below the riff that feeds the pool, with a C.P. Swing. I was halfway down the pool, in the “chub water,” with a small Light Cahill dry fly. I don’t know who struck fish first, but it wasn’t long until we both realized the fishing was great. The fish weren’t spooky, they seemed to be everywhere, and they wanted Mike’s spinners as well as my flies. I know by the time the urge for the Pine Creek Inn’s spaghetti dinner became too great to resist, we had caught and released over 20 small-mouth bass.

In my book this is great fishing by any comparison.

Bait works, too

Then there was the time, one of many, when we left for the same Pine Creek waters to arrive just before dark. A friend, David, was a great bait fisherman and wanted me to experience what he could do with hellgrammites. He used a clear-plastic bobber

to suspend his bait above the bottom as it slowly worked its way down the lazy pool. There is always something exciting about seeing a bobber disappear under the surface, and that evening there were a lot of those experiences.

I found the key to success is waiting long enough to set the hook, but when that is mastered, more times than not you are fastened to another green-backed smallmouth battler. The bobber disappears, it usually comes back up, then starts off again—that is the time to set the hook. The long stretch behind the island was full of bass, and the ones that took our bait were all at least keeper size.

After the light faded, we switched to black Jitterbugs and the fun started all over again. It was a very dark night—I could just make out the tree line against the navy sky. The crickets were a constant sound along with a distant, lightly babbling riffle. The only other sounds were the sloshing gurgles of our surface plugs. Everything was at peace with the expected sounds tucked into the dark and into our minds, because it is with

those sounds that you “see.” Then, *splash, smash*, the bass would lash against the pull of the hook and the bent rod. You always expect a hit, but are rarely ready for it. And you are never completely certain what is fastened to the business end of your equipment—usually bass, sometimes whatever, and many times at night the whatever is big.

Prime spots

David was good with his hellgrammites and good with his surface plugs, but I believe he was best at being observant during the earlier trout season and therefore knowing where the good bass fishing would be later. Each spot we fished had either a deep run or excellent rock cover with dropoffs. They were adjacent to shallower areas with good baitfish and had riffles above to filter food into the bass’s lair. The shallower the water we fished during the day, the smaller the bass tended to be.

That wasn’t true at night when the bass were on the prowl for a good meal. David usually has a few surprises up his sleeve, and the big bass we caught that night weren’t that exceptional for him. Where we caught them would have been exceptional news to quite a few people.

I’ve shared these same waters with other fishing friends countless times over the years, and it still amazes me how few fishermen I’ve seen, and how good the fishing has been. It doesn’t take much imagination to enjoy a trout stream with its inherent beauty. As a matter of fact, as summer progresses I have found it doesn’t even take trout, as long as there are bass present.

Summertime, particularly August, may be the prime time to give trout water a try for bass. With August the typical low-water month, the bass will congregate in deeper pools, but because they are a warmwater fish, they won’t hug the bottom near cold water spring seeps as do trout, but remain aggressive feeders. Activity picks up at dusk because the insect life also picks up. The insects trigger the bass to feed, and the night comes alive.

Presence of food

I’ve never waited until dark to begin. I believe the bass are ready to eat when food is available, and their feeding is triggered by the presence of food rather than time of day or night.

Just as with trout, the fly fisherman can create a hatch by fishing a fly the trout expect to see. If it is fished carefully and put over the fish enough, many times the trout will take. Part of the trick is knowing what the fish expects, or will accept.

The same approach holds true for bass. The only difference between bass and trout is that the bass are less snooty to exact patterns, and when they strike, they act as if they want to kill everything in sight with their hits. When you are used to a sipping trout on certain water, and especially during dog days when everything is quiet except the locusts, the slashing gulp of a surface-feeding bass keeps the adrenalin pumping.

Wading

It is best to follow normal guidelines for fishing low, clear water. Wade carefully, trying to make as little commotion above and below the water as possible. Noise telegraphs great distances in the quiet water. Bass may be bulls when they strike, but they aren't stupid. A low profile and careful casting mean fewer spooked fish and more strikes.

Bait, lures, or flies should match the water and conditions. Smaller sizes should be used during the day because they can be fished with less commotion and more finesse. Throughout the day I've caught bass on the same dry flies I'd be using for trout. My sons have also done well with Crippled Minnow lures and various spinners as well as cork popping bugs.

Line and fly leader tippets should be kept light. During the day I don't go over four-pound test on spinning equipment and frequently use a 12-foot leader tapered to 5X with fly tackle. Typically, the same flies, lures and bait you would use on the trout stream for trout are your best bet for bass on the same creek as long as your selection is based on a knowledge of the natural food available to the fish.

The opposite is true for lures and flies when darkness takes over. Bigger surface plugs, deer hair poppers, and large wets that make a ruckus and tell the bass something is struggling on top of the water are sure producers in low water. After dark you can also get away with heavier monofilament (six- or eight-pound test).

Fastest action

Fishing for bass in trout water after an August rain when the stream is on the rise may produce the fastest action of the year. Minnows, nightcrawlers, hellgrammites, spoons, spinners and flashy streamers drifted or worked in the rising water with the rest of the food that has naturally washed into the stream will usually be taken without a second look. The line can be a little heavier because the water isn't clear.

Fishing at night with an elevated water level (typical May level) should provide the best opportunities for the biggest smallmouths. Not only do the bass have the cover of darkness for protection, they have greater water depth, the surface window is broken by increased current, and food is finally back in abundance. Wade with extreme caution in the swifter and deeper water. A creek should be well-known by an angler before it is attempted to be fished at night.

There are trout waters throughout the Commonwealth that have good populations of smallmouths. Some are on the list of approved trout waters, others are part of those areas that are regulated especially for trout. Consult the *Summary of Fishing Regulations and Laws* for specific regulations governing the stream you wish to fish.

If you are going to fish trout water that is controlled by special regulations for trout or salmon fishing, you must have a trout stamp. Some areas also have regulated hours when fishing is permitted and others have restrictions on the equipment allowed in a specific area. Before going, check carefully to be sure you comply with regulations.

Smallmouths stand on their own as a great sporting fish. When caught out of the same water as trout, they give an interesting comparison to trout on fighting ability. See what you think.



Where to Fish

Trout streams that are noted for populations of smallmouth bass—many with good numbers of specimens in the 18- to 20-inch range—include:

- **Lycoming County** Big Pine Creek
- **Lycoming County** Loyalsock Creek
- **Lycoming County** Lycoming Creek
- **Clinton County** Kettle Creek
- **Centre & Union counties** Penns Creek
- **Centre County** Bald Eagle Creek
- **Tioga County** Cowanesque Creek
- **Perry County** Shermans Creek
- **Perry County** Cocolamus Creek
- **Cumberland County** Yellow Breeches
- **Pike & Monroe counties** Big Bushkill Creek
- **Bradford County** South Branch Towanda Creek
- **Bradford County** Wysox Creek
- **Carbon County** Lizzard Creek
- **Wayne County** Lackawaxen River
- **Susquehanna County** Middle Branch Wyalusing Creek
- **Wyoming County** South Branch Tunkhannock Creek
- **Erie County** French Creek
- **Crawford County** Conneaut Creek
- **Lawrence & Mercer counties** Neshannock Creek
- **Lawrence & Beaver counties** North Fork Little Beaver Creek
- **Warren County** Broken Straw Creek
- **Juniata County** Tuscarora Creek
- **Huntingdon County** Little Aughwick Creek
- **Huntingdon County** Standing Stone Creek
- **Franklin County** West Branch Conococheague Creek
- **Montgomery County** Perkiomen Creek
- **Schuylkill County** Little Schuylkill
- **Lancaster County** Hammer Creek
- **Lancaster County** Middle Creek
- **Lancaster County** Cocalico Creek
- **Lancaster County** Conewago Creek
- **Chester County** French Creek
- **Chester County** Brandywine Creek
- **Delaware County** Darby Creek
- **Delaware County** Chester Creek
- **Somerset County** Lower Laurel Hill Creek
- **Somerset County** Stony Creek
- **Westmoreland County** Loyalhanna Creek
- **Allegheny County** Bull Creek (lower third)
- **Armstrong County** Buffalo Creek
- **Greene County** Enlow Fork (trib. to Wheeling Creek)
- **Greene County** Whiteley Creek
- **Greene County** Browns Creek
- **Greene County** North Fork & South Fork
(of Dunkard Fork of Wheeling Creek)
- **Washington County** Dutch Fork Creek

This list is far from complete, as I'm sure every angler who sneaks onto his favorite stretch of trout water for late-summer bass already knows. But it does provide a start for exceptional bass fishing on Pennsylvania trout water.—DW.

Keystone State

River Catfish

by Jeff Knapp

Forktails, whiskered walleyes, line-slimers. Catfish have many handles, but not a whole lot of angler respect. Even though many anglers fish for catfish, fictitious tales revolve around the fish, and those who pursue it. Cats are often considered “lazy,” as are those who fish for the species.

The truth is that a channel catfishing game plan can be as active as the species. Channel cats are efficient predators, and anglers need versatile fishing methods to take full advantage of catfish characteristics.

One common association made with catfishing is that it's messy. You know, chicken livers, coagulated blood and rotting fish parts. But catfishing needn't be messy. In fact, one of the more effective catfish baits is often associated with part of the American heritage—hotdogs. Yes, a strategically placed small piece of hotdog can be wonderful for duping cats.

Catfish facts

Channel catfish are well-suited to function in rivers, and not many places have more big rivers than Pennsylvania. The highly developed olfactory system of channel cats allows them to forage effectively in turbid water, which can often be the case with rivers.

The world record channel cat was taken in 1964 in South Carolina by W. H. Whaley. It weighed a whopping 58 pounds. Closer to home, the Pennsylvania state record was re-established just last year when Austin Roth III caught a 35-pound, 2.5-ounce channel catfish from the Lehigh Canal. The previous record was a 35-pounder caught in the Allegheny River. That record stood for over 20 years.

Dick Snyder, chief of the Commission Division of Fisheries Management, sees the channel catfish as an important gamefish species.

“The channel cat is beginning to shed its reputation as being a rough fish,” says Snyder. “It's actually a very effective predator, and not the scavenger it's often portrayed to be.”

According to Snyder, our rivers have self-sustaining populations of channel cats. Some stocking does occur, but it is usually done in reservoirs, either as maintenance stocking or for the introduction of the species.

Tactics

This two-way system can keep you on cats throughout the summer and into the fall. It's applicable for all the major rivers of Pennsylvania—the Allegheny, Monongahela and Ohio in western Pennsylvania; the Susquehanna in the state's central region; and the Delaware in the east. Anglers in boats can best take full advantage of the system, but plenty of cats are available for the shore angler, too.



The first is an active approach in which you hunt for catfish during the daylight hours. The second tactic is for nighttime fishing, when the big boys come out to play. The night bite is a more passive affair. You wait for channel cats to move in to feed at predictable locations.

Channel cats tend to inhabit big, deep river holes. Find the biggest hole in a river section and you'll probably find the most and biggest catfish.

Channel catfish are traditionally thought of as being completely nocturnal, but they are catchable during the day, particularly the smaller ones, fish in the 14- to 20-inch size. They are usually in the deepest part of the hole.

To catch these daytime cats, I use the same tactics I'd use in the fall and early spring for river walleyes. I slowly drift the boat over these deep holes while vertically fishing a jig/bait combination. The bait doesn't need to be particularly messy, either. Here is where that small piece of hotdog comes in.



Simply dress a 1/4-ounce or 3/8-ounce jighead with a portion of hotdog, no more than an inch long. Then fish it on the bottom as the boat slowly drifts over the hole. If there is wind, it may be necessary to use the motor to correct the boat's travel so that you continue to drift at the same speed as your bait.

Other good baits for daytime catfishing include sucker fillets and portions of larger baitfish like shiners and chubs. These should be freshly killed. It's not necessary or even desirable to use decaying flesh for bait. Another good bait is ribbon leeches. All these offerings can be impaled on a jighead and fished in the described manner.

Good-sized channel cats can be caught during the daytime, but for a chance to take on a real heavyweight, the game must be played at night. The channel cat has a highly developed sense of smell that undoubtedly explains why the fish can forage so effectively at night.

Big catfish—those in the 20- to 30-inch range—also inhabit deep river holes, though they are rarely caught during the day. The water could best be described as deep and snaggy, because the best holes often have some sunken cover in them.

In the section of the Allegheny River that I fish, the big cats lay in trees and logs that have been jammed into the bottom of deep water. At night they tend to rise out of the cover to feed. It's possible to catch these channel cats by suspending a bait directly over the snags.

Daytime cats can be taken by bringing the bait to the fish, but it's best to take a more stationary approach at night. Forktails make predictable foraging migrations to defined areas.

In addition to holes with cover, channel cats tend to move to the heads of the big, deep holes they inhabit during the day. Position the boat above the upper lip of a hole so the bait can be still-fished in the prime zone. Shore anglers do best by setting up shop on a gravel bar at the head of such a hole.

Productive catfish baits include sucker fillets and portions of larger baitfish like freshly killed shiners and chubs. Ribbon leeches work well, too. All these offerings can be impaled on a jighead and drifted slowly in river holes.

Because you're fishing for big cats, it's best to use big baits. Stick with generous portions of cut bait (sucker, shad or chub fillet), or use the whole baitfish. It isn't always necessary to use dead bait, either, because channel cats are quite willing to nail a live bait. Don't be afraid to use baitfish or portions of baitfish in the four- to six-inch length for nighttime cats.

Tackling channel cats

For pulling in smaller channel cats, lighter gear is adequate. The same tackle you use for bass or walleyes works just fine—six- to seven-foot medium-action spinning or casting tackle spooled with eight- to 12-pound high-quality line.

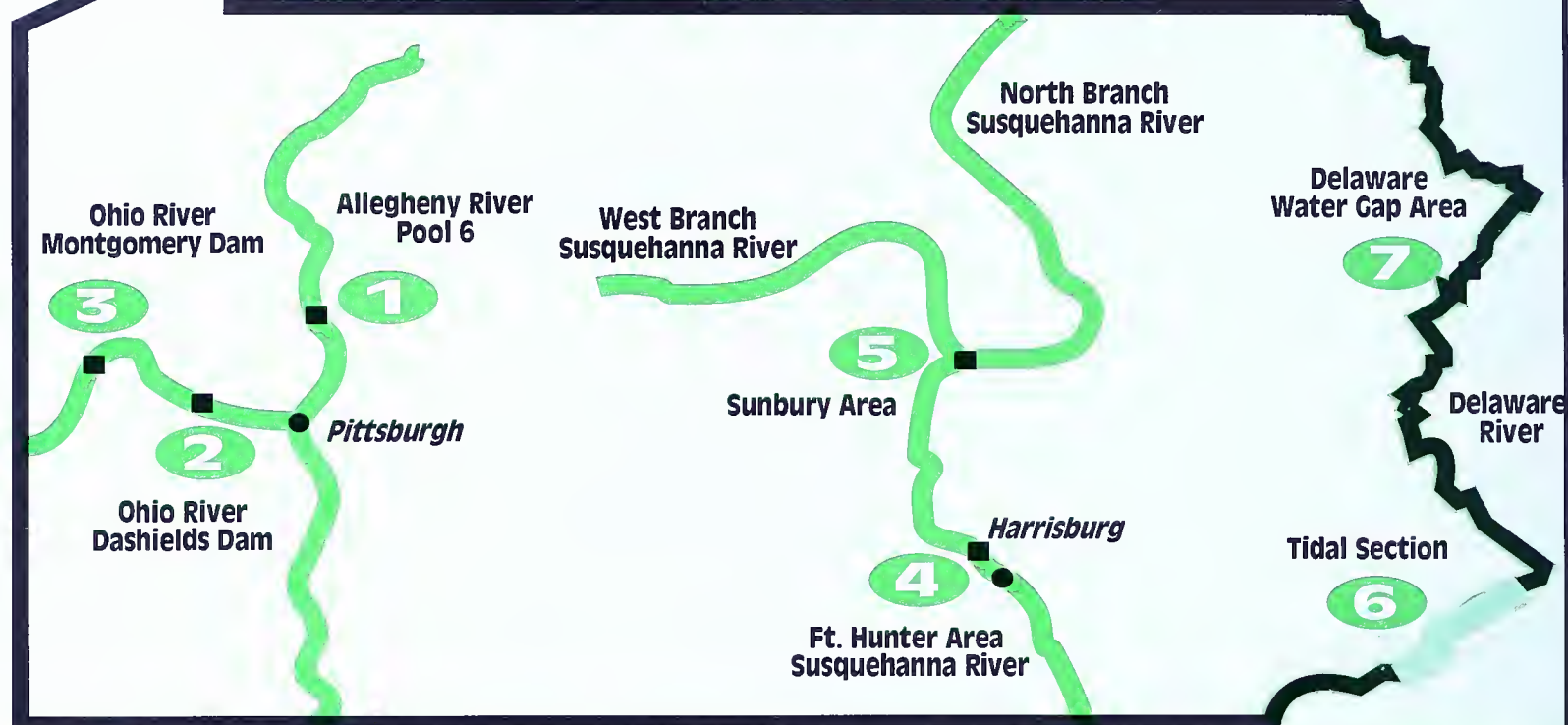
When gearing up for big bruisers, use heavier equipment. I use the same stout casting tackle as I do for musky fishing—six- to 6 1/2-foot heavy casting rods, quality level-wind reels, and 36-pound-test dacron line. There's always the chance of tying into a really huge cat, and you'll want to be prepared.

Big cats aren't shy, so don't be afraid to peg your offering with a heavy sinker. "Bass casting" sinkers up to an ounce or so work great, and you may need them to get the bait down in the current. Hooks should be of heavy construction, and no smaller than a size 2.

Keep all terminal tackle on the "beefy" side when gearing up for big cats.

Channel catfishing is a quality sport, and the species is a worthy adversary. Even though the heat of summer can sometimes put a damper on the more glamorous species, channel cats bite well and fight hard.

Pennsylvania Channel Catfish HOTSPOTS



Best River Sections for Channel Catfish

You can find good river catfishing along most of the major rivers that flow through the Commonwealth. Here's a look at a few choice spots.

● **Allegheny River.** The navigational pools of the Allegheny River play host not only to channel catfish but to the larger flathead catfish. One of the best areas to try for channel cats is Pool 6, a 10-mile stretch between Clinton and Kittanning. You'll find several deep holes in this area. The section just below Lock & Dam 7 is a good bet in the summer.

● **Ohio River.** Some of the best fork-tail action on the Ohio takes place below the Dashiels and Montgomery dams. Channel cats tend to congregate within the first few hundred yards of the dam because of the plentiful forage and high levels of dissolved oxygen.

Several other large holes are within the first few miles downriver of the Dashiels Dam, and you'll want to check them for cats.

● **Susquehanna River.** The Susquehanna River is probably the finest catfish river in the state, producing both numbers of fish and big fish. In 1991 alone, anglers turned in six senior award-sized channel cats (10 pounds and up) from the river, along with several others from its tributaries. The largest was a 21-pound, two-ounce lunker.

Some of the best water is found between the Rockville Bridge and the Clarks Ferry Bridge, near Harrisburg. A few of the holes in this eight-mile river stretch drop to 25 feet. One good area in particular is known as the Dauphin Narrows. There are cats in the 10- to 20-pound range in these waters.



photo-Jeff Knapp

Farther up the Susquehanna, the waters around Byers Island are good. Byers Island is located across from Pennsylvania Power and Light's power plant downriver from Shamokin Dam.

Anglers have taken channel cats up to 13 pounds in this area, particularly the section near the Shadynook access area.

● **Delaware River.** The tidal stretch of the Delaware is the best channel cat stretch on the lower river. This area extends from the bay up to Trenton, NJ. The spots to fish for cats are where the channel, which runs from 25 to 50 feet deep, cuts in close to shore.

On the Delaware, Wallpack Bend, near Marshalls Creek, is also productive.—JK.

THE OHIO River BONANZA

by
Jeff Knapp



photo-Jeff Knapp

The strike had the unmistakable *whack* of a good fish—the kind of hit when you set the hook instinctively.

I had been holding the boat just above the lower edge of a large Ohio River hole downriver from the Dashields Dam. My jig-n-minnow had been dangling in the lip of the hole, a zone that often holds big walleyes. This fish proved to be a solid 20-incher, a clone of several others that I had taken from the spot earlier. None of them was a huge fish—just fine examples of well-fed river walleyes.

Early fall can translate into tough fishing on many still waterways, but this is not the case on most rivers. Autumn signals just the start of fishing opportunities that stretch into the next year. And on the Ohio River, one can fish for three species of black bass, white bass, hybrid stripers,

walleyes and saugers. Now's a good time to check your calendar and plan a trip.

State of the fishery

The rebirth of the Ohio River fishery has paralleled the river's improving water quality, an encouraging story that has been repeated on other large western Pennsylvania rivers. The Ohio provides 40 miles of recreational potential between Pittsburgh and the state line near East Liverpool, Ohio.

Three lock and dam systems within this section of the river are Emsworth, on the lower end of Neville Island; Dashields, located just upriver from Leetsdale; and Montgomery, near Ohioview. Emsworth and Montgomery are gated dams. Dashields is a fixed-crest dam.

Many of the abundant gamefish populations now found in the Ohio can be directly attributed to better water quality. Several species—the sauger, spotted bass, and white bass—have gradually increased in number by migrating into our waters from hundreds of miles downriver. Area 8 Fisheries Manager Rick Lorson, whose southwest Pennsylvania district contains all the state's portion of the Ohio, sees the river as an important recreational asset.

"Comparing it to what was there 15 years ago, it is a very good fishery. And the size makes it even more important," says Lorson. "All the major sources of pollution directly affecting fish survival—mine acid drainage, industrial and municipal waste—have been dramatically reduced."

The "size" Lorson mentions refers to the 40 river miles containing about 6,000 acres of water. This size river provides a substantial area for fish production and fishing. Included in this area are the three "tailwater fisheries" created by the three dams.

Even though the health of the fishery and the potential for better fishing opportunities had been gradually improving, everything peaked in 1987 and 1988. The sauger



and walleye fishing on the Ohio was fabulous during the fall and early spring. Anglers enjoyed quality bass fishing during the warmer months. Then, just as folks began to expect good fishing, things turned sour. The fish seemed to disappear, based on anglers' reports.

"Fluctuations in fish populations in river environments are typical," says Lorson. "Anglers experienced tough fishing the past few years because of all the high water we had in 1989 and 1990. Conditions were poor for reproduction of both gamefish and baitfish. Fortunately, this has changed this year. Compounding the natural fluctuation was the effect of the Ashland Oil Spill of January 1988. We continue to determine the long-term effects of this 713,000-gallon diesel fuel spill."

The stable water levels in 1991 led to a bumper crop of gamefish and baitfish. Emerald shiners and gizzard shad, the staples of the Ohio, were plentiful when Lorson surveyed sections of the Ohio last year. Saugers reproduced in good numbers in 1991, and they had decent spawns the two previous years, despite the poor conditions. However, growth rates were slow during those years.

If the action of early 1992 was an accurate indicator, those fishing the Ohio during the fall of 1992 should be in for some of the best sauger and walleye sport that is possible anywhere. During the fall of 1991 and spring of 1992 the river came alive with incredible numbers of fish, especially saugers.

Anglers who braved the cold weather last year regularly boated high numbers of fish. I know, because I was one of those “numb-fingered” fishermen. Walleyes, like the ones described in the beginning of this story, should also be plentiful.

Bass

The black bass fishery is an important element, and it is comprised of smallmouth, largemouth and spotted (Kentucky) bass. The downriver sections tend to have more spotted bass. Close to Pennsylvania’s border with Ohio and West Virginia, the spotted bass is the main bass species in the Ohio.

Anglers find small-mouths closer to the tailrace areas of the dams, where there is more current. Fishermen take largemouth bass in the lower end of each pool, where the river takes on a more lake-like nature.

White bass are numerous and provide a major panfish element to the Ohio River fishery. Most white bass average about eight to nine inches. What they lack in size they make up in numbers. At times they can be so thick, anglers have trouble getting their baits to the other species.

Catfish, carp

Like the other big rivers of the region, the Ohio plays host to flathead and channel catfish and carp. Less glamorous than other gamefish species, these fish are numerous, big and powerful—not bad credentials. The sport these fish provide tends to be a summertime affair, so you might want to go now for them, but action continues into early fall. After the water temperatures drop into the mid-50s, the action slows.



Hybrid stripers

The majority of the species found and caught in the Ohio maintain their numbers through natural reproduction. The Fish and Boat Commission has introduced some fish that are suited to the Ohio River environment. One of these species is the hybrid striped bass.

A cross between a pure striper and a white bass, the hybrid is known by several names, like sunshine bass and wiper. But to most, it is simply referred to as the “hybrid.”

In waters where the hybrid program has been successful, such as Lake Arthur, anglers have been well-pleased with this gamefish. It grows quickly and reaches impressive sizes, and it is considered an even finer fighter than the purebred striper.

Hybrid numbers in the Ohio are still marginal, which has equated to spotty angler success rates regarding these fish. According to Lorson, he is increasing the rate at which hybrids are stocked on two of the four pools found in Pennsylvania.

The pools

“Pool” is the term used to describe a section of a navigable river. A pool is determined by the name of the dam at the downriver end of the section. The Montgomery Pool, for instance, is the 19-mile section located between Dashields and Montgomery dams.

Large rivers such as the Ohio can have large stretches of featureless water that are relatively void of fish-attracting structure. Each of the four pools has particular areas that hold populations of gamefish. These spots include island areas, small and large tributaries, and the areas below each of the dams. Manmade elements such as bridge piers, pilings, and submerged steel structures also provide cover.

Even though different species have habitat preferences, the “good water” is somewhat limited. Thus, it’s not unusual to find walleyes mixed with smallmouths, and saugers in the same areas as white bass. Each strike has a built-in element of surprise.

The Emsworth Pool extends from

Pittsburgh's Point (the merger of the Allegheny and Monongahela rivers) down to mile 6 and the Emsworth Dams. Islands provide good fish habitat on big rivers, and the Emsworth Pool has its share.

Brunot and Davis islands, and a portion of Neville Island, are all located here. Neville Island straddles the two dams that form this pool. One large feeder, Chartiers Creek, enters the Ohio near Brunot Island.

The Dashields Pool is about seven miles long. The best areas are found in what's referred to as the "back channel"—the portion of the river that flows between the south side of Neville Island and the main shoreline. More than three miles of water are between the lower tip of Neville Island and the tailrace of Emsworth Dam.

Two of the prime areas in the back channel are near the mouths of Moon Run and Montour Run. Other smaller tributaries in the Dashields Pool are McCabe Run, Thorn Run and Narrows Run.

Rick Lorson considers the Montgomery Pool to be the best all-around water on the Ohio. It's the area I've fished the most, and I can attest to the productivity of this 19-mile stretch.

Found within two miles of the Dashields Dam are the mouths of Little Sewickley Creek and Big Sewickley Creek. The Beaver River enters the Ohio in this pool, near mile 25. Raccoon Creek merges about four miles below the Beaver.

The Beaver River is navigable for three miles up to the old lock and dam near New Brighton. Three tribs come into the Beaver along this stretch—Brickhouse Run, Brady Run and Hamilton Run. Shore fishing opportunities abound at these locations. The mouth of the Beaver is an excellent spot, particularly the east side where a shallow point plunges into a deep hole.

Beaver County WCO Greg Jacobs says the remnants of an old lock and dam, found on the Ohio near Monaca, are another productive spot with structure and some deep holes.

The area just below the Montgomery Dam furnishes some of the best fishing on the Pennsylvania portion of the New Cumberland Pool. Another good spot is the mouth of the Little Beaver River, which enters the Ohio at Glasgow, about a half-mile upriver of the state line.

Fall fishing tactics

Early fall angling efforts should target bass. When the water is still fairly warm, topwater lures are an excellent choice. Propeller lures like the Smithwick Devils Horse are great for calling up river bass.



photo-left Knapp

On days the bass won't respond to surface lures, go down to them with hard baits. Rapalas, Storm Thundersticks and other minnow-shaped imitations work well, as do fatter baits like Fat Raps and Wiggle Warts.

Grub-type lures—Power Grubs, Galida's Grubz and Mr. Twisters—should also be part of your fall river bass arsenal. A selection of subtle jigs like Fuzz-E-Grubs works especially well on smallmouth bass when the water turns cold in the late fall. I've taken smallies on the Ohio in January on grubs tipped with fathead minnows.

White bass are easy to catch early in the fall. WCO Jacobs related a story where the white bass were literally biting a bare hook. During the early fall they school below the dams in open water and chase schools of shad. These fish are aggressive. They respond well to topwater lures and shallow-running minnow-shaped baits. The possibility exists of tying into a hybrid striper as well.

Later in the fall the white bass school in deep holes. Anglers catch them while fishing for walleyes and sauger.

The best walleye and sauger action gets going around November. Fish start stacking up below all the dams. Large holes and the mouths of feeder creeks are important fish attractors, too.

Jig-n-minnow presentations take the most fish. Metal baits—Hopkins Spoons, Silver Luckys and Rocker Minnows—also account for their share of walleyes and saugers. These lures should be jigged in a vertical fashion.

Good walleye and sauger fishing continues throughout the winter, and peaks just before the season closes in mid-March, when the fish become concentrated as they prepare to spawn.

AFM Lorson expects the overall fishing on the Ohio River to improve further as more pollution clean-up efforts fall into place. In light of what's available now, that should be something to see.



The author thanks AFM Rick Lorson and WCO Greg Jacobs for their assistance with this article.

Health Advisory

For several years a health advisory—issued jointly by the PA Department of Environmental Resources, the PA Department of Health, and the PA Fish and Boat Commission—has been in place warning anglers not to consume certain species of fish in the Ohio River. Unacceptable levels of the contaminants PCBs and chlordane were detected in carp and channel catfish. This advisory remains in effect for 1992.

Advisories of this nature do not apply to all species. Black bass, white bass, walleyes, saugers and freshwater drum are also tested on a yearly basis for contaminant levels. Flesh analysis from the most recent testing has revealed that these species in the Ohio River are within acceptable limits.

To reduce health risks for contaminants for any species of fish, prepare the food properly. Exposure to contaminants can be reduced by 1) consuming smaller fish, 2) removing skin and trimming fat from the fish's back, belly and sides—this includes any dark-colored flesh, and 3) broil or grill fish to allow fat to drain away.—AFM Rick Lorson.

Public Access

Emsworth Pool

City of Pittsburgh Southside Access (actually on the Mon River, about two miles up from the Point).

Dashields Pool

Sewickley ramp—located off Route 65.

Montgomery Pool

Commission access at Leetsdale.

Commission access at Rochester.

Commission access at New Brighton (on Beaver River).

New Cumberland Pool

No public access.

Boaters may gain access from one pool to another by locking through. All that is needed is a 75-foot length of rope. If you value the finish on your hull, use bumpers when you lock through.—JK

The Streamer I Never Outgrew

by Art Michaels

About 24 years ago when I first got into fly fishing and fly tying, I read Tom Nixon's book, *Fly Tying and Fly Fishing for Bass and Panfish*. In that book was a streamer fly pattern he called the Calcasieu Pig Boat, after the Calcasieu River in Nixon's home state of Louisiana. I tied a quick adaptation of that fly, and ever since I've used it successfully for smallmouth bass, largemouth bass, pickerel, yellow perch and other panfish.

The version of Nixon's Calcasieu Pig Boat that I make is easy to tie. I start with a 4X to 6X long-shank hook in sizes 12 to 6, and I use black thread. At the bend I tie in red yarn and wind it near the eye. Then I tie in strands of white, black or gray rubber hackle—the same rubber hackle used in popping bugs and jigs.

The rubber hackle I used 24 years ago was very thin—much thinner than anything I've seen these days. I bought that rubber hackle from Herter's, and since that company went out of business, I've found this specific thinness of rubber hackle nowhere else.

In any case, I tie on about 15 to 25 strands so that they radiate from the fly head evenly around the hook shank. I cut the hackle squarely about a quarter-inch behind the bend.

Then I build a head with thread, whip finish it, and give it a

I twitched it to make the rubber hackle pulsate. I used to own a four-horsepower outboard, and with my 12-foot boat I trolled the shallows dead-slow. I also used to cast a Pig Boat to likely looking spots on the lake. Largemouth bass, pickerel and perch couldn't resist a Pig Boat.

I've experimented tipping my Pig Boats with a variety of pork trailers, and sometimes I've wrapped an inch-long bit of aluminum foil on the leader just above the fly as an attractor.

I've waded rivers armed with Pig Boats and have caught smallmouth bass, too, but I've never caught a trout with a Pig Boat—at least not yet.

Back then I fished exclusively with a fly rod, and for most seasons from about June on, I recall using Pig Boats most of the time. Sometimes I used a

tapered leader; sometimes I used an eight-foot section of six-pound-test mono. I fished the Delaware often then, and the river's smallmouths and spunky green sunfish seemed to want only Pig Boats.

My fly rod was an eight-footer for eight-weight line. That worked well for my small Pig Boats, and even though I flailed away then with the same tackle using larger Pig Boats, today I opt for a nine-foot fly rod for nine-weight line to heave larger Pig Boats.

When I started tying flies some 24 years ago, Pig Boats were



photo-Dave Wunderlich



photo-Art Michaels

thick coat of fly head cement. Sometimes I paint on eyes, and here and there I've experimented with a variety of fly tying and lure-making eye products, all of which made the fly too cumbersome. Most of my Pig Boats are simple—wound yard, flowing rubber hackle, built-up head, and painted-on eyes.

Red and white are traditionally good colors for pickerel lures, so I made my first Pig Boats with red yard and white rubber hackle. I'm sure that other color combinations and body materials are also productive.

On shallow lakes from spring through fall, I used to drift in my boat with the fly some 10 to 15 yards behind. Now and then

one of my first attempts. Mine were unrefined and easy to make. But tying Pig Boats and catching lots of fish with them let me feel proud of my fishing and fly tying efforts—an important ingredient in taking up and sticking with a new hobby.

You'd think I would move on to more complicated patterns and more intricate fly tying techniques—or at least add them to my arsenal. When I'm out on the river with fishing friends, I notice their caches crammed with poppers and their boxes stuffed with surface lures and jigs. I have those things, too, but more often than not, I tie on a Pig Boat.



Bill Hartle: Officer of the Year



Assistant Supervisor Bill Hartle

photo - Russ Gettig

Assistant Regional Supervisor William F. Hartle has been named 1991 Officer of the Year, according to Commission Bureau of Law Enforcement Director Edward W. Manhart.

Hartle began his Fish & Boat Commission career in 1967, serving as a Forest County deputy fish warden. In 1969 he became a full-time officer and was assigned to York County. He served there until 1978, when he became assistant supervisor of the Northcentral Region, the post he currently holds.

Hartle is the Northcentral Region NRA police firearms instructor and the region's American Red Cross CPR/First Aid instructor. He is active both in training and in law enforcement, and has assisted in a variety of law enforcement investigations statewide.

Hartle and his wife, Joyce, have two children—Michelle, who is currently pursuing a masters degree in sports medicine, and Michael, a senior at The Citadel, in Charleston, South Carolina.

Manhart announced the honor last May at the Northeast Fish and Wildlife Conference, in Norfolk, Virginia. The conference meets annually and includes states from Maine to Virginia.

Correspondence Tip

If you ordered subscriptions, publications or other items from the Fish and Boat Commission, and if you need to correspond with the Commission about your order, be sure to include in your letter the 7-digit number on the back of your canceled check. This number appears directly below the stamp, "Pay to the order of the state treasurer."

Lower Your Boat Insurance Premiums

Would you like to save money on your boat insurance premiums? The Boat Owners Association of The United States (BOAT/U.S.) offers the following advice:

- Increase your deductible. As with auto and homeowners' insurance, the higher your deductible (usually a percentage of the hull value), the lower your premium. Don't use the insurance company for a risk that you can afford on your own.

- Take a safe boating course. The U.S. Power Squadrons and the U.S. Coast Guard Auxiliary offer courses that often qualify for discounts. To find a course near you, call the BOAT/U.S. Foundation Courseline at 1-800-336-BOAT.

- Many insurers offer discounts when safety and security equipment such as automatic fire extinguishing systems and burglar alarms are installed.

- Where you cruise can determine insurance premiums. It generally costs less to insure a boat on inland lakes and rivers than on coastal waters.

For more information about marine insurance coverage, write Marine Insurance, BOAT/U.S., 880 South Pickett Street, Alexandria, VA 22304, or call 1-800-283-2883.

Commissioner Calvin J. Kern



Commissioner Calvin J. Kern

photo - Russ Gettig

We sadly note that Pennsylvania Fish and Boat Commissioner Calvin J. Kern died in March. Commissioner Kern was appointed by Governor Shafer in 1968 and served the Commission for 24 years.

Walk the dog

I have a friend who's an expert with baitcasting tackle. He fishes often for bass using lures like a Gaines Fat Albert or a Zara Spook, and with these lures he says he "walks the dog." What is this technique?—*John Hunsberger, Norristown, PA.*

"Walking the dog" is a fishing tactic in which you retrieve a cigar-shaped lure across the surface of the water. The lure jumps back and forth in a rhythmic action. Walking the dog requires a heavy stickbait so that you can impart the correct action. A stiff rod and a smooth reel also help.

Mastering this technique requires practice. When you cast the lure, let it settle on the water. Lures used in this technique settle sideways in the water, and that makes starting the technique easier.—ed.

Wet-wader

I plan to do some wet wading this summer. I see a lot of anglers on the Susquehanna and Juniata rivers doing this, but fish mostly from my boat, so I've never done it before. Any tips?—*Paul Smathers, York, PA.*

An old pair of tennis shoes, shorts and a T-shirt are the most common wet-wading "uniform," but you might want to protect your feet more from the pebbles and sand that get into sneakers as you wade. Some wet-waders wear wading shoes with gaiters to seal out sand and pebbles. Wading shoes that rise above the ankles offer additional support for the feet and ankles.

Fly rods or ultralight spinning tackle are your best bet. A nine-foot fly rod for nine-weight line lets you lob large lures and helps you reach high above the waterline. If you go with ultralight spinning tackle, use spinners in sizes 1 to 3 and minnow-shaped plugs about 2 1/2 inches long. Crayfish patterns work well in August. Jigs of 1/8-ounce to 1/16-ounce work well, too. A lightweight fishing vest and small waist-held tackle box are also helpful.—ed.

ANGLERS CURRENTS



Robert C. Adams III, of Downingtown, displays the seven-pound, 10-ounce rainbow trout he caught in the Little Lehigh River, Lehigh County, last May. Adams fooled the fish with Power Bait and hauled it in on four-pound-test line.



Leonard Huska shows off the five-pound, 4 1/2-ounce palomino trout he caught last May in Warren County's Spring Creek. The trout grabbed a spinner.



Michael J. Thomas, of Coatesville, holds the 16-pound, 1/4-ounce carp he caught last April in the East Branch of Brandywine Creek, Chester County. Thomas fooled the carp with corn and battled the brute on four-pound-test line. Nice fish, Mike!



A 27-pound, nine-ounce striped bass was Lackawanna resident Bobby Przywara's catch last April at Lake Wallenpaupack. Nice fish, Bobby!



Mercersburg resident Jeffery Christy shows off the four-pound, seven-ounce smallmouth bass he landed in the Dauphin County stretch of the Susquehanna River last April 5. Christy fooled the fish with a jig. He released the bass in good condition right after the picture was taken.



Robert Donnelly, age 9, from Moosic, nailed this hefty 2 1/2-pound yellow perch last April in Lake Wallenpaupack. The perch clobbered a minnow. Good catch, Robert!



James Steinson III (right) and son James left a 43-pound, two-ounce musky that they caught in Lake Wallenpaupack last May. The musky grabbed a jig, and the elder Steinson wrestled the fish in on eight-pound-test line.

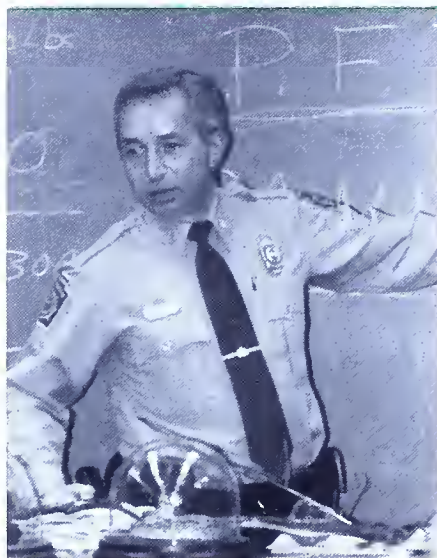
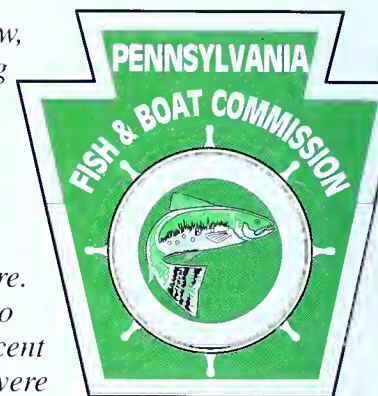


Photo - Mainline Newspapers

WCO Bob Kish conducts a mini boating course for 7th grade school students. Students are taught about the use and types of PFDs and the laws and regulations governing them, the BUI law, and safe boat capacity. They are also shown a video on boating safety and receive literature about boating. Because statistics show that PFDs either aren't used or aren't on board during boating accidents, the main object of the course is safety and the use of PFDs.

This course has been taught to approximately 350 students, with about 90 percent of each class having been on a boat before. Questionnaires consisting of four simple questions were given to the students at the end of the course, and approximately 98 percent of the students answered that they learned to make sure PFDs were on board a boat and not to drink while boating. WCO Kish will continue to teach this mini boating course in schools.



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

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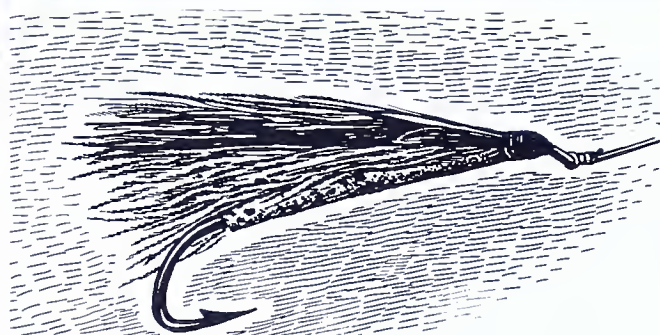
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Angler's Notebook *by Joe Reynolds*



Late summer may produce big trout for those who fish at night. Try streamers and big wet flies fished downstream into deep pools. Even heavily fished streams may hold trophy browns that feed only at night.

Crankbaits are a good choice for bass fishing in rocky areas. They tend to bounce off rocks without hanging up, and many anglers believe the noise they make when hitting rocks is an additional fish attractant.

Trout in low water are extremely skittish. Approach pools carefully after looking them over from a distance for feeding fish. If necessary, crawl into casting range to maintain a low profile.

Crappies like structure and shade. Bridges over lakes and reservoirs provide both. On cloudy days the fish stay near the bridge structure. During sunny periods the fish move to stay in the shadow of the bridge.

Spinnerbaits are a versatile bass fishing lure. They can be fished deep or shallow, they are somewhat snag-free, and they are relatively inexpensive.

Terrestrial imitations of grasshoppers, crickets, ants, beetles and other critters that reach population peaks in late summer are an excellent choice for the warm-weather trout fisherman.

Old monofilament fishing line or plastic baits should never be discarded in the water. Monofilament can wrap around propellers and damage seals. Both monofilament and plastic baits can cause the death of birds and other wildlife.

River smallmouth bass fishing can be excellent just after a summer shower. The rain lowers water temperatures and adds oxygen to the water, stimulating fish to feed.

Lakes crowded with swimmers and water skiers during the day should be fished early in the morning. Usually there is a three- or four-hour period from first light until the water skiers take to the lakes.

When replacing line on a spinning reel, lay the new spool of line flat on the floor so that line comes off the spool in the same direction it is wound on the reel.

Topwater baits with propellers work better when the rod tip is held close to the water's surface during the retrieve.

A length of PVC plastic pipe is perfect for storing lake maps. Cut the pipe to the desired length, glue a cap on one end, and press-fit a cap to the other end. Such map cases are nearly waterproof.

Bass fishermen can store plastic baits in zip-lock bags. Another good idea is to add a small amount of your favorite fish attractant formula so baits are always ready to use.

When temperatures in the shallows rise to 80 degrees or higher, bass remain in deeper water. Try the shallows at first light. Then fish structure in deeper water when the sun rises.

Stripping guides and tip guides on fly rods tend to wear quicker than running guides. Check these two for grooves and replace them, if necessary.

illustration- George Lavanish

On the Water

with Dave Wolf

"Volunteers"

I fished past the jack dam, noticing only the magnificent pool it had created. I waded the crystal clear waters, casting a long leader so as not to spook the trout that held in the thin waters. I was pleasantly surprised to catch stocked trout a mile away from any easy access point to the stream. Later I had a long, pleasant conversation with an older gentleman I had met at streamside while preparing for the trip home. In talking, he told me he was a deputy waterways conservation officer and patrolled the stream on a regular basis. I gave little thought to his position, but told him I had had a good day fishing, and if he was interested, I had released all that I had caught.

Years passed and I became actively involved in sportsmen organizations. I gave my time as president of the Potter County Federation of Sportsmen, president of the First Fork Fly Fishermen, vice-president of the Potter County Anglers, and publicity chairman for the God's Country Chapter of Trout Unlimited. In fact, I became so deeply involved that I spent an average of five days a week tending to environmental concerns.



photo-Russ Getting

Life progressed and now I sit on the inside looking out, so to speak. The view from "within" is sometimes awesome and seemingly overwhelming, and I often wonder how the Fish and Boat Commission accomplishes the many goals it has set forth to do within a year. No, this is not hype, despite the fact that it may sound like it. Besides a dedicated staff, the Commission is blessed with volunteers who spend countless unpaid hours for the good of others who participate in water sports and recreation.

Consider that the Bureau of Boating has 550 volunteers who teach boating and safety awareness and/or water rescue programs. The Bureau of Property and Facilities Management reports 185 cooperators in its Adopt-a-Stream Program, and the Bureau of Fisheries has over 150 sponsors in the Cooperative Nursery program. Getting a handle on exactly how many volunteers play a part in the latter two programs is difficult at the least, because some clubs boast memberships of 4,000 or more, others significantly less. In spite of all of that, there is quite a troop of volunteers out there—that you can be sure of.



photo-Art Michaels

Also classified as volunteers are the 360 deputy waterways conservation officers who contributed 114,000 hours of time last year. That includes enforcement work, public relations functions, and attending sportsmen and civic organization meetings. Yes, deputies are paid a daily stipend, but most put in countless numbers of unpaid hours annually.

Consider the late Joe Waiter, a deputy for the Fish and Boat Commission for 46 years. Yes, 46 years—the longest period of service in the history of the Commission. Joe, like many others, did what he did simply because he enjoyed seeing others reap the benefits of his labor.

Exactly how many Boy Scout troops and other youth groups contribute time and effort to the Fish and Boat Commission's efforts is impossible to calculate. It is conceivable that the time spent on the waters by volunteers may exceed the Commission staff's total number of hours per year, and staff puts in many long hours that are often contributed hours.

The Commission is grateful to all those who volunteer their time and effort in order to make fishing and boating safer and more fun. Ask them why they do it—why they spend countless hours giving so unselfishly—and they will more than likely smile, scratch their heads, and tell you that they believe in clean water and fishing and boating, and that "aw, shucks, they really didn't do all that much."

Looking from the inside out we know better, because without volunteers, the efforts of the Commission would be severely hindered. Those looking from the outside should realize the efforts of the volunteers of this state and never take a safe boater, clean water, leaping trout or stream improvement device for granted. Someone, somewhere, put a lot of time and effort into better fishing and safer boating in the Keystone State.

A group of dedicated individuals apparently believes that it is better to give than to receive—or perhaps has found the old adage to be true.



photo-Bureau of Boating

Pennsylvania's **BIGGEST** Smallmouth Bass: When, Where and How Anglers Catch Them

by Bill Porter

The Commission granted 96 smallmouth bass Junior and Senior Angler's Awards for catches made in 1991. To qualify for a senior award, a smallmouth must weigh at least four pounds, and for a junior award, the fish must be at least 3.5 pounds.

When

Pennsylvania anglers caught their award-sized smallmouths every month of 1991. Peak seasonal periods were evident with more fish caught in the spring pre-spawning time and again in the fall months than during the other months of the year.

A look at the top 10 smallmouth winners bears this out: January (1), March (2), June (1), July (1), August (1), September (4).

Remember that bass regulations changed in 1991, so pre-spawn fish next season are no longer available.

Where

Anglers caught their 96 smallmouth bass in 25 counties, representing 34 waterways. Lake Erie topped the list with 35 catches. The Susquehanna River was next with 20 fish. Susquehanna River counties included Snyder, Cumberland, Dauphin, Lycoming, Clearfield, York, Northumberland and Lancaster. The Juniata River yielded seven trophy smallmouths with six from Perry County and one from the Juniata County portion.

There were four award-sized fish from Raystown Lake and four from the Allegheny River. Tionesta Lake provided two trophy bass. The following waterways had one award-sized smallmouth each: East Branch Lake, Leaser Lake, White Oak Pond, Allegheny Reservoir, Twenty Mile Creek, Delaware River, Laurel Hill Creek, Rose Valley Lake, L.B. Shepard Reservoir, Pymatuning Lake, Conodoguinet Creek, Briar Creek Lake, Beltzville Lake and Nockamixon Lake.

How

Within the top 10 fish recorded, the smallmouths took more lures than natural baits. This may have been the result of the fishing styles of the anglers instead of the choice on the part of the bass.



photo-Art Michaels

Taking the top 10 in the order of their ranking, the number one bass fell for a Gitzit jig. The others in order: Wiggle Wart, bucktail, jig, nightcrawler, crawler harness, minnow, Dardevle, un-named plug, and spinner.

Stone cats, crayfish and hellgrammites appeared farther down the list with additional lures listed. The overall picture reflected more success with lures on and under the surface.

State record

Charles Pence's 1990 state record smallmouth bass is still the top fish in the category. The fish, caught in Lake Erie, weighed seven pounds, 10 ounces.

The biggest smallmouth bass in the Commission's 1991 records weighed six pounds, 13.5 ounces, caught in Lake Erie. The close second came in at six pounds, 10.8 ounces from East Branch Lake. The next six places ranged from six pounds even to five pounds, six ounces—a range of just 10 ounces. The average weight of the top 10 smallies was 5.9 pounds.

Your big smallmouth

The Fish and Boat Commission has a guide sheet with an application for the Angler Recognition program. Included are the Angler Awards and the 50+ Husky Musky Club. You can obtain a copy free by writing to the Publications Section, Dept. F., Fish and Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673. Be sure to enclose a business-sized stamped, self-addressed envelope with your request.

September 1992/\$1.50

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Straight Talk

A Spring Creek Vision

When I was a youngster fishing Centre County's Spring Creek with my Dad, I never dreamed that someday this beautiful stream might be closed to the many fishermen who had learned to love the stream and enjoy its many benefits.

Unfortunately, there have been many changes during the past half-century, and more and more Pennsylvania property owners are closing their stream and pondside holdings to public use. Often these closings are caused by poor behavior by fishermen or other public users, or the property owners simply want isolation and privacy. Occasionally, owners of large tracts of land or water frontage decide to lease or charge fees for recreational use of their property, and in many cases, lands are closed for no apparent reason. One thing is certain, however. Long-term public access to prime waters can be ensured only through the kindness of private property owners or by public easements or ownership.

The Fish and Boat Commission has reached an agreement to acquire a very valuable section of Spring Creek, with acquisition to be finalized late this year. This property is a major part of "the missing link"

between Fisherman's Paradise and other Commission stream holdings located between Bellefonte and Milesburg. Purchase of this section of Spring Creek could serve as the catalyst for a well-conceived partnership by individual property owners, businesses, local governments, the Fish and Boat Commission, other Commonwealth agencies, Penn State University, and conservation groups to create a "conservation corridor" along the entire main stem of Spring Creek and its major tributaries.

Think about it. This is a unique opportunity for a long-term model project with national significance. It could provide major recreational and environmental benefits for tourists and local residents, and an economic benefit to Centre County and central Pennsylvania. Commercialized streamside properties along Spring Creek and Logan Branch, through Bellefonte and other isolated areas, could also be improved by creative and envisioned planning. Most importantly, it could place this natural resource in protective stewardship forever.

The Commission already owns more than five miles of the main stem of Spring Creek, and the PA Department of Corrections owns nearly two miles. Penn State University, Bellefonte Borough, College Township, and several other municipalities also control valuable streamside holdings. Tallyrand Park in Bellefonte, Spring Creek Park in Houserville, and Milesburg Community Park are already beautifully developed and maintained streamside facilities that offer much pride and pleasure to local users. The park-like lands of the 28th Division Memorial Shrine and Museum in Boalsburg provide another haven for streamside visitors, and the bike and hike trail in the Lemont-Millbrook area is yet another example of the recreational uses that can be provided in the Spring Creek Corridor. The Duck Pond and Thompson Run below State College, although much abused, also offer many recreational opportunities, and Walnut Springs Park in State College, a natural park, surrounds a head-water tributary to Spring Creek.

One can envision a public multi-recreational streamside natural access trail from State College to Bellefonte and Milesburg, connecting Boalsburg via Houserville, Lemont and Oak Hall. Logan Branch, between Bellefonte and Pleasant Gap, and Slab Cabin Run, offer similar opportunities.

The valley also includes unique geological conditions, and flora and fauna that need to be protected. These resources, properly managed, would also provide a marvelous outdoor nature education system. It could provide countless recreational benefits for anglers, hikers, bicyclists, bird-watchers, nature lovers, and others, including persons with disabilities.

The entire corridor could be a source of endless planned volunteer habitat and stream-bank enhancement, landscaping, and maintenance projects. Adoption of selected sections of the corridor by volunteer organizations could greatly reduce the costs needed to keep the corridor safe and protected from misuse and abuse.

In 1991, a new National Recreational Trails Program and Trust Fund was approved by Congress, and Pennsylvania may receive some funding in the near future. A second program provides money for transportation enhancements and will be administered by PennDOT. These programs could help such an effort.

Recent upgrades of sewage treatment plant discharges at all major watershed treatment plants, together with accelerated efforts to solve the Mirex pollution problem in Thompson Spring, are very positive events. The recent upgrade in the Spring Creek stream water quality classification, fought for and won by the Commission and its many allies, emphasizes why the time is right to plan a conservation corridor, and implement the plan on a prioritized basis as time, funds and public interest permit.

Making such a dream a reality requires a well-organized effort involving a large group of dedicated and enlightened citizens, property owners, businesses, government agencies, and conservationists. The Pennsylvania Fish and Boat Commission and its supporters have taken giant steps in that direction, and the Commission challenges others to join and follow this lead.

Interested groups and individuals need to form a partnership to coordinate efforts and move to protect and enhance this tremendous natural resource. Are there enough dedicated people who love Spring Creek to unite and provide time, money and energy to make this vision a reality? I believe there are many people with that conviction. Please write to me if you are one of them.



Edward R. Miller, P.E.

Executive Director

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September 1992 Vol. 61 No. 9

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The cover

This issue's front cover, photographed by Joe Workosky, shows successful Pennsylvania angler Dan Bantley with a Lake Erie smallmouth. In September, when tolerable temperatures and brightening foliage beckon, the fishing bug bites hard. If you live near Philadelphia, check out some of the angling opportunities in the article on page 4. If you're from central Pennsylvania, the article on page 14 might grab you, and if you're from western Pennsylvania, check out the Allegheny River smallmouth bass article on page 20. Trout anglers across the Keystone State will want to scan the ideas in the article on page 16, and on page 12, fly tiers can find a pattern that's fun to tie and effective this month. Walleye fishing can be terrific now, so check out the article on page 8 to find a walleye hotspot near you, and if late-summer largemouth bass fishing gets you going, please turn to page 24. Be sure to snap a picture of the fish you catch and send it to us. We'd love to consider printing it in the "Currents" section. This issue's back cover, photographed by Barry and Cathy Beck, shows a proud angler with a nice brown trout on a northeast Pennsylvania stream.

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DOCUMENTS SECTION

An Hour from Philadelphia

by John W. McGonigle



Keystone State anglers living in and around Philadelphia have the benefit of excellent fishing in the area and within an hour's drive of the city.

Any discussion of fishing within an hour's drive of Philadelphia has to include the Delaware River, and even though it's September, you have to note the spring shad run. The shad run on the Delaware is cause for joy for anglers in the entire Northeast. In recent years the numbers of shad have increased regularly, giving thrills to increasing numbers of anglers.

With their delicate mouth structure, shad require light line and finesse to land. Increasingly, sportsmen are going to lighter tackle, and in some cases are opting for noodle rods for these anadromous speedsters.

Summer and fall means bass on the Delaware, and not just a few of them. Present in good numbers, smallmouth hit everything from crankbaits, jigs and flies to baits such as crayfish and perhaps their favorite, minnows.

Light-action rods and reels, matched to six-pound mono, are up to the smallmouth task. The light line helps ensure good lure action in the smaller lures required for smallmouth bass.

Largemouth bass are also available in the Delaware, including the tidal water within sight of the city. It is best to pay attention to the tides because they are frequently the determining factor in deciding where and when to fish.

Another major factor to keep in mind while fishing the Delaware in the area of the city is the ship traffic. Small boats are dangerous because of the heavy boat traffic and because of the wakes caused by large vessels. No matter which size fishing boat you favor, personal flotation devices (PFDs) should be worn at all times in this area of the river.

Try the confluence of the Wissahickon and the Schuylkill for muskies. They are stocked there and are known to hold in that area.

Striped bass are making a comeback in the Delaware River with a new Pennsylvania record striper caught in 1989. The striper fishing in the Delaware has made the Fish and Boat Commission revise its record fish category to allow for two types of striper records, landlocked and sea-run stripers.

The area of the Commodore Barry Bridge, in Chester, Delaware County, has produced good striper catches in recent years. Bloodworms are undoubtedly the most effective bait. In addition to bait, stripers can be enticed to hit large plugs, which makes it easier to release sub-legal-sized (under 36 inches) stripers.

According to Mike Kaufmann, Commission Area Fisheries Manager (AFM), delayed hooking mortality of striped bass caught by hook and line in warm freshwater is expected to be high. For this reason, don't intentionally fish for sub-legal-sized fish, and don't play sub-legal fish when you hook them. Instead, land and release the fish quickly.

The Delaware has also been occasionally producing good walleye fishing. Walleyes are considered by many to be the best-tasting freshwater fish. Whether they are or not, walleyes have been producing good action in a limited number of river locations.

Minnows are probably the number one producer as far as walleyes are concerned, frequently fished behind a beaded spinner blade rig.

One of the best systems for fishing walleye is the quick change system. It is made up of spinners, beads, weights and trolling wires that quickly and easily attach and detach, ensuring more fishing time and less time rigging. Tackle shops that cater to walleye fishermen carry quick change tackle items.

Schuylkill River

The Schuylkill River, though smaller than the Delaware, flows into Philadelphia and is a fisherman's bonanza. Years of effort to clean up this formerly polluted waterway have wrought a tremendous change in the fishery and greatly increased the angling opportunities on the river.

Starting right in the city below the dam at the Philadelphia Art Museum, fishermen take good numbers of bass and also have a good chance at muskies. Carp are huge here, and catfish are abundant. Blue crabs are available in the summer, so if the fish aren't biting, you can still sit back and enjoy some crabbing. Bank fishermen score at this spot, but the angler with a boat capable of putting into the Delaware and then running

Helpful Information

Some Area Tackle Shops

Bob's Bait & Tackle, Philadelphia, (215) 487-0887.

Bryant's Gunsmithing, Oakford, (215) 357-3064.

Clayton's Hunting & Fishing, Horsham, (215) 672-6060.

Dave's Sporting Goods, Doylestown, (215) 766-8000.

Davey's Bait & Tackle, Phoenixville, (215) 935-0979.

Gordon's Sporting Goods, Broomall, (215) 356-6178.

Gordon's Sport Supply, Eagle, (215) 458-5153.

Leonard's Hunting & Fishing, Upper Darby, (215) 449-6409

Nockamixon Sport Shop, Quakertown, (215) 538-9553.

Susquehanna Outdoors, Norristown, (215) 630-0988.

Vandegrift's Bait & Tackle, Hatfield, (215) 723-7353.

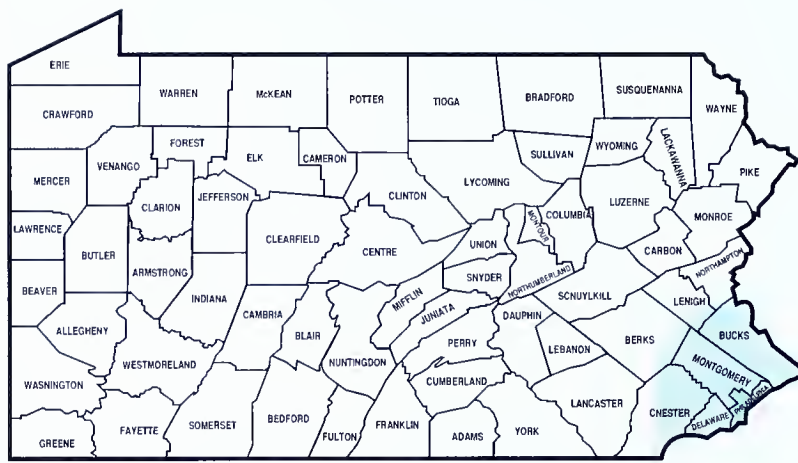
up the Schuylkill within sight of Fairmount Dam has the advantage.

Catching carp, catfish, suckers and eels from the Schuylkill for recreation only is the best policy. Health advisories have been issued against consumption of these species from the mouth at Philadelphia upstream to Felix Dam, north of Reading. White perch are probably also contaminated below Fairmount Dam, but the blue crabs are considered safe to eat, based on recent flesh analyses.

The section of the Schuylkill just above Boat House Row is good for both catfish and carp. Various dough and stink baits are commonly used. Some very large carp are in this stretch, and hooking one can put your tackle to a severe test.

Make sure you fish the confluence of the Wissahickon and the Schuylkill. You might just tie into something big! Muskies are stocked from Fairmount Dam to Flat Rock Dam by the hundreds in alternate years, and they are known to hold in this area of the Schuylkill.

Upstream, just below Flat Rock Dam, is good for both channel cats and smallmouth bass. Minnows take a surprising number of smallies, and their size is such



that they put up quite a battle on ultralight tackle. Most Schuylkill River smallmouth bass are less than 12 inches long.

Putting a small boat in at the ramp at Gladwynne can provide good bass fishing action all the way up to spots within sight of Plymouth Dam at Conshohocken.

The stretch of river between the Haws Avenue boat ramp in Norristown and the one located in the park next to the Betzwood Bridge offers varied fishing opportunities.

Both largemouth and smallmouth bass are present. Citation-size crappies have been taken from cover against Barbadoes Island, and large carp can be found there, too.

Once you get above the Betzwood area, your chances rise for hooking into a musky. According to AFM Kaufmann, the mouths of several tributaries, namely Valley Creek, Perkiomen Creek, Pickering Creek and French Creek, are especially good spots to go for these toothy critters in February and early March. White bucktail jigs are an excellent lure choice.

Perkiomen Creek

Perkiomen Creek, easily reached by following Ridge or Germantown Pike from the city, is a good spot to work on smallmouth bass, muskies and redbreast sunfish. The Commission stocks the stream in alternate years with 1,000 tiger musky fingerlings. Fishing near the bridge in Collegeville and in the pool upstream from Schwenksville has paid good musky dividends over the years. Also try from the bridge down to the confluence with the Schuylkill in Oaks.

The upper reaches of the Perkiomen at East Greenville and Palm have trout, some holding over through the fall.

Nockamixon

Staying with warmwater species, take a leisurely 40-minute drive from the city to Nockamixon State Park to fish Lake Nockamixon in Bucks County. A dozen years ago this lake was overly fertile, but with a major overhaul of the Quakertown

Sewage Treatment Plant and implementation of runoff controls on local farms, the algae is under control. Nockamixon is now a top producer of bass, striper hybrids, walleyes and tiger muskies. Nockamixon was added to the Commission's Big Bass Program in 1992. The size limit is 15 inches and the creel limit is four bass per day.

Lure enthusiasts toss a variety of hardware with success. Rat-L-Traps in chrome/blue and chrome/black, firetiger bombers, and a variety of soft-plastic baits work well.

The top producer for all species in Lake Nockamixon is minnows.

Nockamixon holds some really nice striper hybrids up to 17 pounds, but they are tough to catch because of the abundance of gizzard shad, alewife and white perch, which offer an easy meal to the stripers. Night fishing increases your chances of success.

A 10-horsepower engine is the maximum allowed, and that's entirely adequate for this Bucks County hotspot.

Lake Galena

Not far from Lake Nockamixon is Lake Galena, in Peace Valley Park. It lacks extensive cover, but it still boasts good populations of walleyes, channel catfish, white perch and carp.

Only electric motors are allowed on Lake Galena.

Reservoirs

Churchville Reservoir in Bensalem, Bucks County, is a good spot for shore fishermen because there is no access for boating. However, shore fishing is permitted only from the causeway. Bass, catfish, carp and crappies are plentiful, and bait is your best bet. Lures work, but without a boat, you'll lose many of them.

Delaware County's Springton Reservoir offers good fishing for bass, both largemouth and smallmouth. Lures work well, but you are limited to fishing from the shore in the very upper end of the lake. There are restrictions against night fishing here.

Brandywine, Ridley creeks

The Brandywine Creek in Chadds Ford, a 30-minute drive on Route 1 from City Line Avenue, holds both largemouth and smallmouth bass. Both shore and boat fishing is available. Many anglers take two cars and use a canoe, drifting leisurely from one nearby access point to another. Many stream banks are posted, but polite anglers who inquire about fishing are frequently given permission to fish.

Tossing small lures is often effective, and the flexibility offered by a canoe lets you work a particularly promising spot thoroughly.

Ridley Creek offers year-round fly fishing in the delayed-harvest, fly-fishing-only area that starts at the falls in Ridley Creek State Park and goes downstream for .6 miles to the mouth of Dismal Run. Because of warm water temperatures, however, July and August fishing may be poor.

Ridley Creek is located just outside Media, and the special regulations area can be reached by following the stream where it goes under Baltimore Pike.

Marsh Creek Lake

Chester County's Marsh Creek Lake, located in Marsh Creek State Park, is about an hour's drive from Philadelphia. It is only five minutes from the Downingtown Exit of the Pennsylvania Turnpike, outside the village of Eagle.

Featured in the April 1992 *Angler*, Marsh Creek, like Nockamixon, has been placed in the Big Bass Program, which allows four bass daily of 15 inches or larger. Ice fishing is also popular at Marsh Creek, especially for panfish.

Loch Alsh Reservoir

Loch Alsh Reservoir, located in Ambler, Montgomery County, is a small impoundment stocked with trout in spring and most falls. Shore fishing is the rule, and normal trout baits and lures are effective. This waterway also produces an occasional large bass.

There are many trout waters within an hour's drive of Philadelphia, but few offer much in the way of fall fishing. Most of the streams become fairly warm, and coupled with heavy fishing pressure, angling opportunities become slim late in the year. However, as part of a four-year-old program, each October the Commission stocks trout in Wissahickon Creek from Northwestern Avenue downstream to Valley Green and Ridley Creek in Ridley Creek State Park.



Maps

● For maps of the Delaware River, including water depths and access points, contact: Delaware River Basin Commission, P.O. Box 7360, West Trenton, NJ 08628.

● Delaware River navigation charts are available from the National Ocean Service, Distribution Branch (N/CG33), Riverdale, MD 20737. The phone number is (301) 436-6990. Ask for Catalog 1.

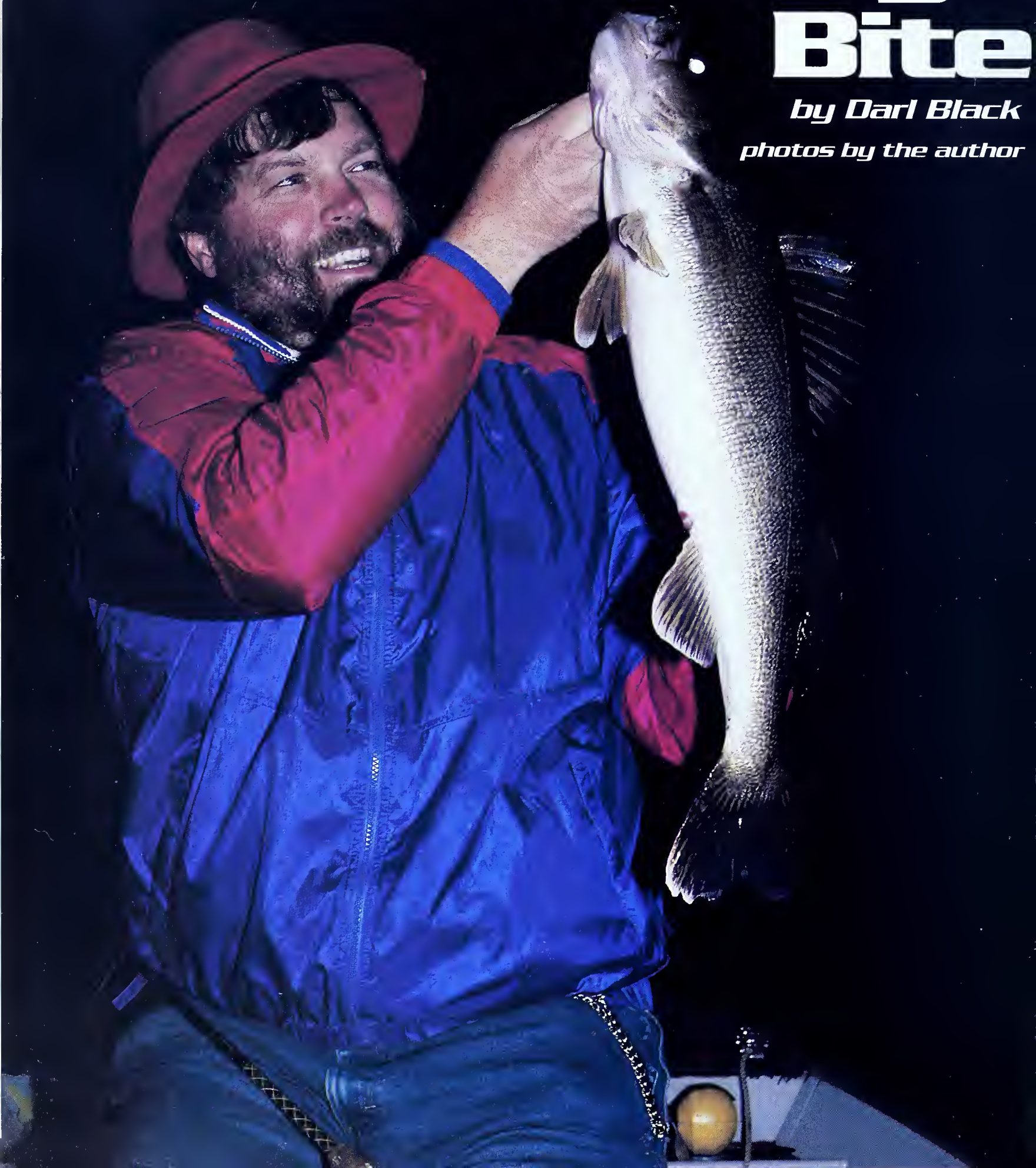
● Schuylkill River maps are available in a series of eight waterproof maps, identifying access sites, stream flow characteristics, dams and pools from Port Clinton to Fairmount Dam. The series costs \$7.70 plus tax. Contact: State Book Store, 1825 Stanley Drive, Harrisburg, PA 17103. The phone number is (717) 787-5109.

● Hydrographic (bottom contour) maps are available for other area waterways. Contact: International Map Company, 547 Shaler Boulevard, Ridgefield, NJ 07657. The phone numbers are (201) 943-6566 or (201) 943-5550.—JWM.



Pennsylvania's Fall Walleye Bite

by Darl Black
photos by the author



Thump!

The fish hit the blade bait so hard I thought sure I 'heard' the hit as well as felt it. The rod was almost pulled from my grasp. Rearing back with a forceful hook set, the arching graphite blank seemed stressed to the limit. The fish moved, but not in my direction. The manner in which the fish behaved on the end of the line told me it was another walleye.

"This one is a big 'un," I shouted to my wife. But then I had made the same claim on the previous two fish. Both had turned out to be three- to four-pounders, about the same size as the ones Marilyn had boated. All four walleyes had been caught in the last 10 minutes.

Hoping it might be a long-awaited 10-pounder, I took my time working the sassy walleye to the surface. When it came into sight, it was apparent that this fish was the largest of the evening—but not a wall-mounter. As Marilyn slipped the net under the six-pounder, the 'eye spit up a large baitfish, just as several of the others had done.

Right after I put the fish in the livewell and lowered my lure back to the lake bottom, Marilyn and I both set hooks into fish at the same time. "Heck of a dinner party going on down there," I muttered as we struggled in unison with respectable fish.

Then it was all over. As quickly as the feeding spree had started, it ended. Although we fished around the hump another hour until well after sunset, neither of us had another strike.

While this ravenous feeding spree had taken place 25 feet below the surface, I had been alerted to the coming attraction by readings on the depthfinder.

When we first arrived at the rockpile, we observed no baitfish signals on the depthfinder. But it was a good spot, and I had taken several walleyes off the site a day earlier. Then, 20 minutes later while drifting across the hump for the fifth time, I noticed baitfish signals. Within a minute, the first walleye was on the line. Some 15 minutes later, we had boated seven walleyes out of 10 or 11 strikes.

Last October, almost a year to the day of the above outing, I had been fishing a different water only 10 miles away, but under an entirely different set of circumstances. There I caught and released over a dozen walleyes in three to four feet of water, with many fish coming on crankbaits.

Next week I figured on catching walleyes from the Allegheny River with a jig-and-minnow combination. Yet it's all part of the fall walleye bite.

Someone out there is saying, "How can you catch walleyes on crankbaits in shallow water, on blade baits in deep water, and on live bait in a river, but call it all the fall walleye bite?"

Does it seem confusing to you? Perhaps. Let's try to put it in perspective.

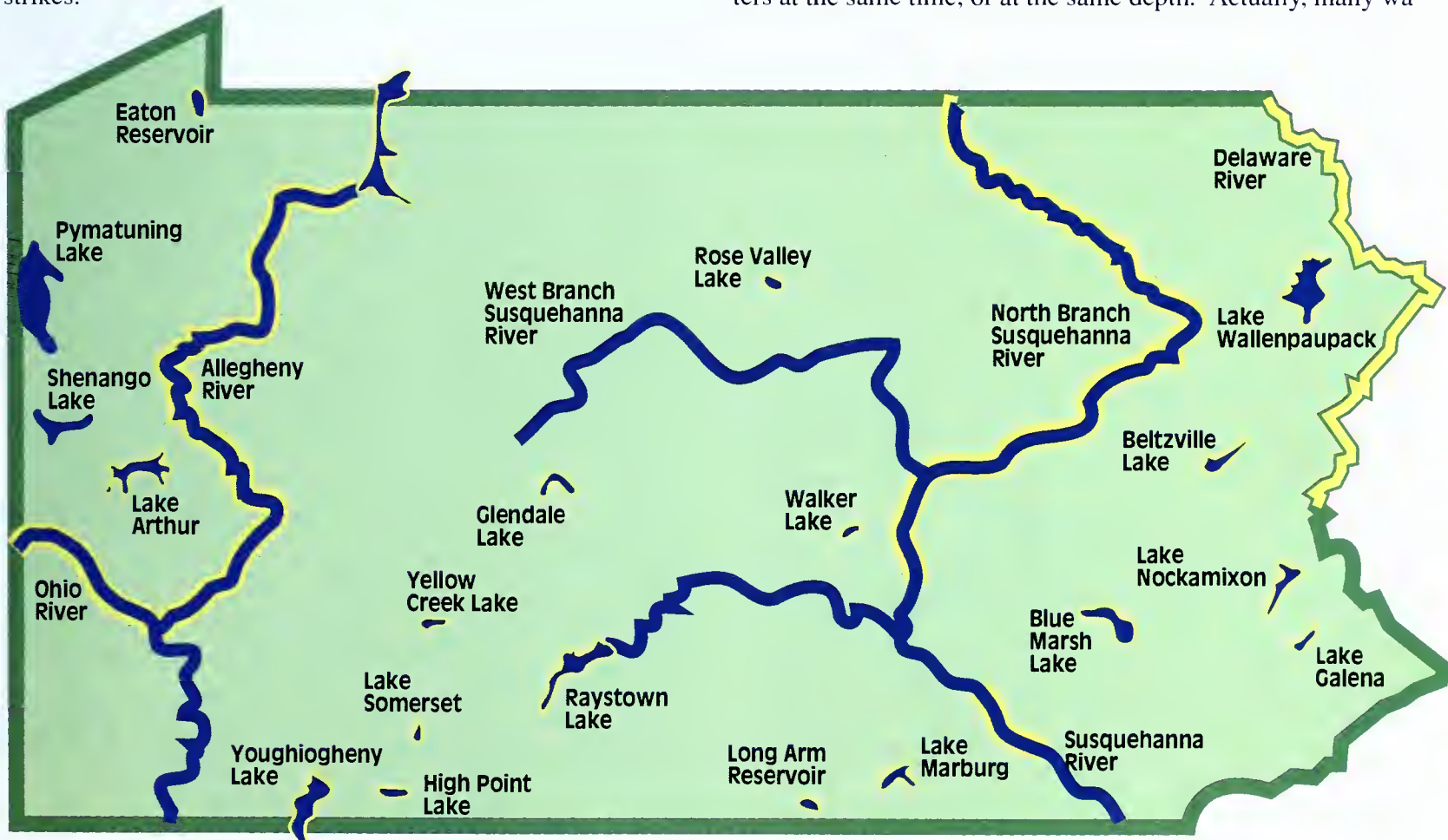
Adjustments


Most anglers have read how great walleye fishing can be during the fall. A writer describes in detail the circumstances of catching fish with a particular lure. Perhaps you tried it on a local water. Maybe it worked for you—maybe it didn't.

But there is more than simply trying a new bait. The challenge for the angler is to identify what is occurring on a particular waterway during the fall peak, and then select the best lure presentation for the circumstances. If you have not experienced the variety of fall walleye situations, this may still have you scratching your head.

First, let's define a seasonal peak as it relates to angling. A fishing peak refers to a time—ranging from a week to perhaps more than a month—when a particular species is noticeably more active than during other times. A seasonal peak does not mean that the fish are aggressively feeding all hours of the day, just that the likelihood of intense feeding sprees are more likely to occur and may last for a longer duration.

Simply put, walleye fishing does not peak each fall in all waters at the same time, or at the same depth. Actually, many wa-





Action-tail jigs work best when walleyes are aggressive. Use 1/8-ounce heads in shallow water, and 1/4-ounce and 3/8-ounce heads for deeper water.

ters undergo two peaks in the fall. How rapidly the water cools, the forage species present, and the phase of the moon all have some bearing on walleye feeding binges.

Water volume and average depth of the lake are primary factors relating to the cooling process. Shallow waters cool quickly and deep lakes usually cool much slower. Additional factors affecting temperature include exposure to the wind and the amount of runoff entering the waterway. Bodies of water protected from fall cold winds by mountain ridges or hilly terrain generally remain warm longer. Lots of cold rain runoff speeds the cooling process.

Often specific forage affects how the walleyes react to changing conditions in the fall, too. In natural lakes where walleyes rely on native forage sources such as shiners and young-of-the-year yellow perch, the peaks generally follow a reliable timetable.

However, in some manmade impoundments where non-native gizzard shad serve as the chief walleye forage, a different scenario takes over. Usually sometime between mid-September and mid-October, young-of-the-year shad flock to the shallows triggered by dropping water temperature. Walleyes follow, not because of cooler water, but because that is where the forage has moved. Heavy, cold rain in September results in an early peak, and a warm, dry autumn delays the gizzard shad movement into October.

The moon and walleyes—how do they go together? Even though controversy continues to surround solunar periods and fish feeding activity, there is one aspect of the moon's relationship that is very clear to me. Personal fishing records clearly show that the best walleye bite takes place on the three days leading up to the full moon. Debate all you wish, but you'll find me on the water on the days immediately before the full moon.

Don't limit lure presentations

Too often anglers limit themselves to using one bait presentation for the entire autumn. Wrong move! An angler's arsenal for fall walleyes must vary to meet the changing locations, depths and moods of the fish.

Walleyes do not move to a particular structure in September and remain there until ice covers the lake. Nor do they feed constantly simply because the water temperature is dropping. There are periods of aggressive feeding, periods of passive feeding, and periods of lockjaw. By mastering different presentations, you can vastly increase your chances for consistent success throughout the entire fall.

Here are several presentations that have proven very successful for fall fishing.

● **Shallow crankbaits.** When walleyes follow baitfish toward the shore in the early fall, shallow-diving baitfish-imitating crankbaits are excellent choices. With fish in water depths of less than six feet, casting is far superior to trolling. Crankbaits work well for early fall walleyes in rivers, too.

If the water temperature is above 55 degrees, crankbaits may be retrieved at normal speed. This greatly increases the amount of water you can cover.

Some anglers prefer crankbaits that resemble the size and profile of the major baitfish. An angler following this train of thought would choose a cylindrical-shaped crankbait for a perch-based lake, and a stubby, flat-sided crankbait for a shad or alewife forage-based lake.

I'm not sure the profile concept is a prerequisite, although I do attempt to match the approximate size of the baitfish. In other words, if the walleyes are feeding on young-of-the-year shad, I'm probably not going to throw a seven-inch minnow bait. Instead, I'd try something about three inches long.

● **Action-tail jigs.** Jigs from this category are used without adding live bait. The tail must be free for swimming action during the retrieve. Live bait hinders the tail movement.

Action-tail jigs are most effective when walleyes are aggressive. With walleyes on a feeding spree, baiting a jig or rig with a minnow can be time-consuming. It is important for the fisherman to capitalize on the frenzy because it won't last long. Jigs with a swimming tail provide the appearance of a live baitfish simply by pulling the lure through the water.

The depth at which an action-tail jig can be fished effectively is based on the weight of the jighead. Heads of 1/8-ounce are directed toward the shallowest water, and heads of 1/4- and 3/8-ounce cover depths of 10 to 35 feet, depending on wind conditions. If you fish in water deeper than 40 feet, consider switching to a 1/2-ounce head.

● **Jig-and-minnow.** The combination of a minnow on a jig may be the number-one walleye-getter of all time. It is a better system for most situations than a minnow on a walking-sinker rig. On a jighead, the minnow is in direct contact with the weight, so you can control the bait more precisely and detect strikes immediately.

Although fathead minnows are used most often because they are readily available at bait shops, the live bait does not have to be a minnow. Some anglers prefer a small creek chub or sucker. Just be sure to match the size of the hook to the size of the bait. With the point of the hook brought up through the lower jaw and out the top of the head, the gap of the hook should be slightly wider than the thickness of the bait.

I favor brightly painted leadheads. Chartreuse is hot in early fall, with orange taking over in late fall. The jig may be fished with or without a soft plastic/marabou body. The body dressing adds color and slows the drop rate of the jig.

● **Blade baits.** The vibrating metal blade bait is sort of a cross between a jig and a crankbait. It sinks quickly to the bottom as a jig does, but it vibrates wildly when the rod is lifted. The flash and vibration attract walleyes.

Blades are very effective in depths from 15 to 40 feet. One successful retrieve method is to cast the blade out, let it sink, and work it close to the bottom, moving the lure in one- to two-foot jumps as you'd fish a jig. Or it may be jigged straight under the boat in a yo-yo fashion. The action of a blade is very similar to an injured baitfish that is struggling to swim away but continually falters and falls toward the bottom.

● **Jigging spoons.** These heavy slabs of metal or brightly coated lead are similar to blade baits in purpose. When jigged near the bottom, they appear to be struggling baitfish. Deepwater or strong river currents are their niche. Snap the rod tip upward to make the spoon jump. Or simply hold the spoon just off the bottom and shake it to generate strikes from walleyes that are unwilling to chase baitfish.

● **Live-minnow rigs.** The use of straight live bait should not be overlooked for creek and river fishing. For riffles and slow current situations, try drifting a three- to five-inch baitfish with a splitshot placed about 12 inches from the hook.

A second rig, the Wolf River rig, is used for deeper water or stronger currents. It starts off with one arm of a three-way swivel tied to your line. Off the second arm of the three-way is a two- to three-foot leader with a bait hook attached. The third arm has a dropper leader of lighter pound-test line with a bell sinker of 1/4- to 3/4-ounce. If the sinker snags, the lighter line breaks off, saving the baitfish. Good bait is more difficult to come by than sinkers.

Fall Walleye Tackle Box

An angler's fall walleye tackle box should include a selection of lures from different categories. Suggestions for each category are listed below. Products are listed alphabetically by company name.

● **Crankbaits.** Bomber Flat A, Bomber Speed Shad, Cordell C.C. Shad, Rapala Shad Rap, Rapala Rattlin' Fat Rap, Storm ThinFin, Storm Flat Wart.

● **Action-tail jigs.** Berkley Power Grub, Blakemore Road Runner with Curl Tail, Blue Fox Vibrotail, Mister Twister Curly Tail, Mister Twister Sassy Shad.

● **Subtle jig bodies for jig-and-minnow combo.** Berkley Power Teaser, Blue Fox Foxee, Lindy Fuzz-E-Grub.

● **Blade baits.** Bullet Blade, Cordell Gay Blade, Heddon Sonar Flash.

● **Jigging spoons.** Bass 'n Bait Rattlin' Snakie Jig Spoon, Bullet Zinc Jig Spoon, Hopkins Shorty, Luhr Jensen Crippled Herring.

Knowing when and where

Nowhere will you find a master list of all the waters telling you where and when during the fall the walleye feeding peaks take place. However, here are some guidelines you can apply to our home waters.

Most lakes and impounded waterways have an early fall walleye bite when the water temperature starts to cool, dropping through the 60s into the 50s. This is a shallow-water bite, although the depth is relative to the overall characteristics of the water.

Take, for example, two waters near my home. The early fall peak on Pymatuning (a dinky, shallow-water reservoir) occurs in water less than 10 feet. But at Conneaut Lake (a deep, clear-water lake), the early bite takes place in 10 to 30 feet.

After the turnover is complete and water temperature dips below 50 degrees, look to deeper water for the walleye activity. "Deeper" at Pymatuning means 15 to 25 feet; at Conneaut, the deep bite is 25 to 45 feet.

Remember—because they cool more slowly, deep-water impoundments located in the mountainous terrain typically peak later in the fall than shallow lakes in flatter terrain.

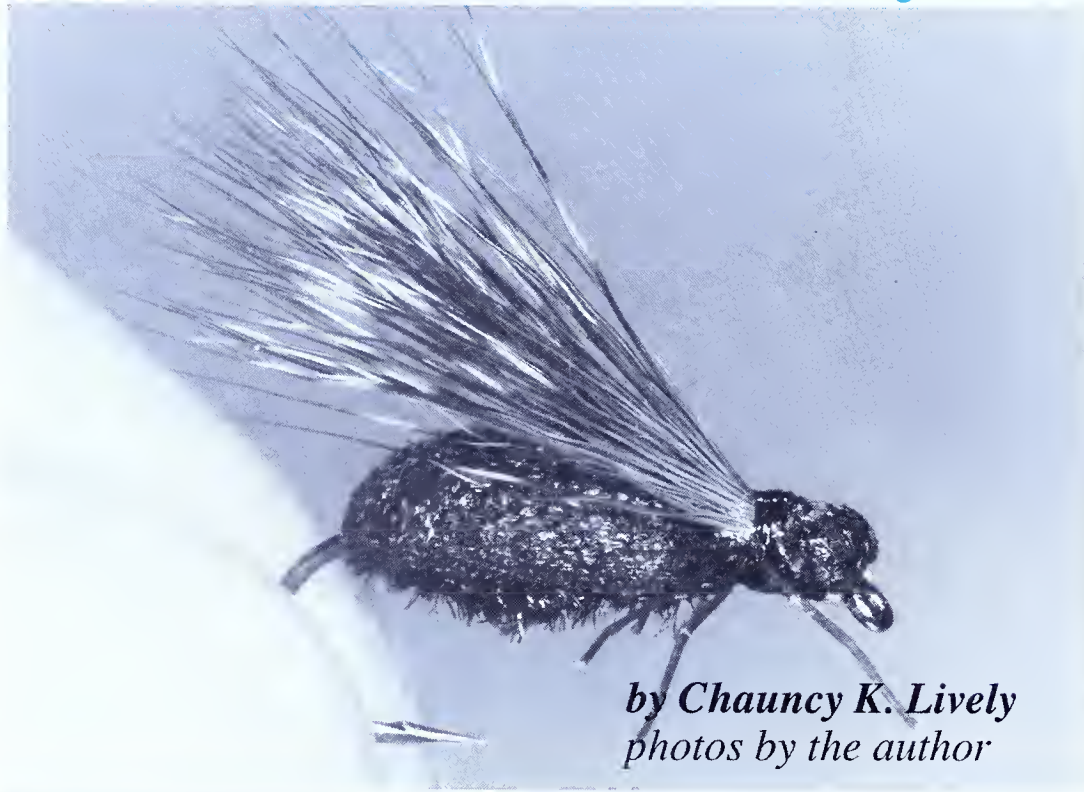
River systems go through changes, too. As the level of a river or creek begins to rise from the summer low and the water temperature begins to drop, the walleye bite picks up. The river bite usually builds slowly through the fall, hitting its peak just as ice buildup along the shore hampers fishing.

The early fall river bite may take place in the tail of riffles or small eddies. As the water continues to cool and baitfish shift position, expect the walleyes to move into deeper holes or pools where the current is not as swift.

Another important aspect of river fishing is the flow rate. High flows force the bait and walleyes close to the shore to escape strong currents. Low flows shift the fish out to offshore current breaks.

With a few seasons of fall walleye fishing under your belt, you can develop a timetable for peak times and successful bait presentations on local waters. An observant angler pinpoints differences in some waters that do not follow the norm. Often the idiosyncrasies of walleyes in a particular body of water produce the best fall fishing.

A Foam Horsefly



*by Chauncy K. Lively
photos by the author*

Insects comprise more than half of all living things on earth. Entomologists estimate that there are more than two million insect species worldwide, exceeding the number of all animal species combined. If you consider the number of insects that come from the water, and those terrestrials that reach streams in errant flight—all of which potentially provide food for trout—it is a small wonder we fly anglers carry more patterns than most of us admit.

Of course, not all insects appeal to the appetites of trout. I have watched certain large caterpillars float over good trout without stirring a fin. Were these apparently juicy morsels shunned out of instinct or bad experience? On the other hand, judged by the enthusiasm trout show for grasshoppers, it is obvious the kicking insects earn a top rating on the trout's gourmet scale.

On several mountain streams in southwestern Pennsylvania we encountered swarms of horseflies that appeared for a period in late spring or early summer. These were times to be well-anointed with a good insect repellent because these blood-seek-



1 Tie in the thread one-third the shank length behind the hook eye and spiral-wind it in spaced turns back to the bend, then forward again, forming a cross pattern. Hold the foam strip on top of the shank and bind the end at the initial tie-in. Then wrap firmly around the foam and shank in spaced turns to the bend.



2 Tie in the tips of four peacock herls at the bend and trim the excess. Then hold the herls together and wrap them with thread in spaced turns.



3 Holding the herl and thread together, wrap forward in close turns to produce a full body. Tie off with three turns where the thread was initially tied in and trim the excess herl.

ers can inflict a nasty wound. We never found more than the odd horsefly on the water at any given time, but the trout always seemed to be aware of their presence. During the times when horseflies were around, almost any well-fished dry fly that remotely resembled a horsefly in form, size and color would generally elicit a splashy response. Obviously, here was a food item trout relished.

Horseflies are *dipterans* of the family Tabanidae. They are close relatives of deerflies and share many of their nasty characteristics. They are stout-bodied and large, sometimes reaching about an inch in length. The females are blood-suckers and constitute a menace to large animals, both wild and domestic. The males, which are rarely seen, feed entirely on nectar and plant juices. Female horseflies have been seen following moving automobiles and trains, evidently mistaking them for large animals.

I have dressed horsefly patterns for many years. In fact, in the February 1977 *Angler* I described a deerhair version with which I had enjoyed success. But like other pat-

terns in which deerhair is stretched longitudinally across the back, it was more fragile than I'd wished, owing to the vulnerability of the hair to sharp teeth. However, the availability of evasote and other similar closed-cell foam materials presented new opportunities for fly tiers. Known as Fly Foam, this material generally comes in sheets of 1/8-inch to 3/16-inch thickness. When cut into strips, it can be dressed into bodies much the same way bundles of deerhair are manipulated. The material is tough, lightweight, buoyant and easy to use. It is available in several colors, but many tiers prefer the flexibility of using white foam and tinting it as desired with permanent marking pens.

In this Foam Horsefly, a fuzzy underbody is formed from a twist of four or five peacock herls entwined with the tying thread. Then a "shell-back" is formed by drawing a strip of foam over the herl and anchoring it at the fore end of the body. The downwing is fashioned from a bunch of fine-textured deerhair. Coastal deerhair is ideal for this purpose. I use moose mane hair

for legs, but coarse deerhair may be substituted if the former is not available.

Fish the Foam Horsefly as you would a beetle or other terrestrial dry fly. However, when the naturals are on the water they often buzz across the surface with wings fluttering wildly, leaving a wake behind. This action may be simulated by holding the rod high and vibrating the tip rapidly. It is a ploy that often evokes explosive rises and it's also a tactic that sometimes stirs up the trout on days when the stream appears dead.

ANGLER

Dressing: Foam Horsefly

Hook: Size 10 regular shank (or smaller sizes for houseflies or related patterns).

Thread: Black 6/0 prewaxed.

Overbody: Strip of black Fly Foam 3/16-inch x 3/32-inch x three inches.

Underbody: Four peacock herls.

Legs: Moose mane hairs.

Wing: Coastal deerhair.



4 Pull the foam strip forward over the herl and tie it down at the fore end of the herl. Then wrap forward in firm, close turns to compress the foam for a short length ending behind the eye. Wind the thread back to the body, and for legs bind three moose mane hairs crossways over the shank.



5 To form a large head, fold the foam strip up and back and tie it off. Trim the excess foam.



6 For the wing, cut a medium-sized bunch of coastal deerhair and even the tips in a stacker. Tie the hair in behind the head with the tips extending slightly behind the bend. Trim the excess butts and wrap over the butts. Then bring the thread under the head and whip finish behind the eye. Lacquer the exposed windings and trim the legs to 1 1/2 times the shank length.

Susquehanna River Rock Bass

by Ken Hunter

I had been fishing for nearly two hours without a strike. It would be dark soon, so I switched to a small torpedo-shaped surface lure with propellers front and back in hopes of attracting the attention of a few last-minute smallmouths beginning their evening feed. With the lure about halfway back, I felt a hard strike, a miss, and then another jolting strike, and I was playing my first fish of the evening.

It didn't take me long to realize that the throb ebbing at the end of my line was not a smallmouth, but a feisty rock bass. In a half-hour of casting I had a half-dozen more rock bass and a number of missed strikes—all in all, a good finish to what could have been a skunking.

No doubt, most fishermen encounter rock bass while fishing for other species, and some anglers even consider redeyes a nuisance. Few fishermen head off to their favorite waterway with rock bass in mind, but these hand-sized sunfish offer some great sport and are often more cooperative than many other fish.

Rock bass can be found throughout the state of Pennsylvania. Many lakes, large rivers, and most of their tributaries hold good populations of these spirited little panfish. The Susquehanna River is no exception, playing host to an ample population of rock bass throughout most of its length. A favorite stretch of mine is from Williamsport to Lewisburg.

The Williamsport to Lewisburg stretch offers several Fish and Boat Commission accesses in the towns of Sunbury, Milton, Watsontown, Montgomery and Muncy. This stretch of river has very long, slow-moving stretches of water with shallow, rocky riffles separating the large pools. Small boats with gas motors are fine, but use caution when passing through the shallow riffles

from one pool to another. Floating in a canoe is a good way to cover this stretch, and the length of the trip can easily be regulated to suit your needs, thanks to the number of Commission accesses. Pay particular attention to fishing around bridge abutments because rock bass often concentrate in these areas.

Even without a boat, you can enjoy great rock bass fishing by wading the shoreline and the shallow riffles and pockets behind rocks and boulders. Some especially great wading can be found along the Susquehanna in the shallow, broad stretches.

The smaller tributaries to the Susquehanna should not be overlooked, either. Streams like Lycoming Creek, Pine Creek, Loyalsock Creek, Muncy Creek and Buffalo Creek all contain populations of rock bass. Much of the water on these streams and along the Susquehanna still has ample public access.

Rock bass are usually found in clear water over rocky bottoms, but they may also be found along weed edges, docks, piers and bridge abutments. They are particularly fond of hiding under various types of cover and on more than one occasion, I have peered over the edge of a dock, rock or overhang only to discover an area apparently void of fish.

A particular rock ledge comes to mind in the clear waters of Loyalsock Creek. The ledge, about a foot beneath the surface, protrudes into the pool, creating about a six-foot underwater overhang. While scuba diving beneath this ledge one summer, I was astonished to find between 50 and 100 rock bass milling about in the shallow cave-like depression. Peering into the water from the bank, you would swear there were no more fish in the entire length of the pool.

Tackle, baits

Fishing for rock bass doesn't require special equipment. In fact, your regular trout fishing tackle is made to order for chasing redeyes. Light, open-faced spinning gear handles the small lures that are necessary to catch this relatively small-mouthed fish. To get the most out of rock bass action, however, use an ultralight open-faced spinning outfit spooled with two- to four-pound-test monofilament. This gear lets you cast the smallest lures and baits while maximizing the power of the fish.

Rock bass are usually very willing biters, taking a large assortment of lures and baits. They strike spinners, jigs, spoons, plugs, flies, worms, crayfish, minnows and practically anything else that swims or crawls that they can fit into their mouths. For the lure fisherman, straight-shafted spinners and spinnerbaits are effective. The key is to keep them small enough.

An excellent way to increase your strike percentages is to tip your spinner with a piece of worm. Another very effective trick is to remove the tail of a freshly caught crayfish, peel away the hard outer shell exposing the soft white meat, and then hook this morsel to the treble hooks of your spinner.

In stream or river fishing, cast across and slightly upstream, retrieving just fast enough to keep the blade spinning.

Minnow-type plugs in gold or silver can also be very effective.





photo-Ken Hunter

tive. I have caught rock bass on bass-size plugs, but a three-inch size or smaller results in more hooked fish. Another excellent choice in the plug category is a crayfish-type crankbait. Rock bass are especially fond of crayfish and these plugs, with their wobbly action and natural crayfish finish, attract their fair share of the action. Fish crankbaits as you'd fish spinners—across and slightly upstream with a fast enough retrieve to produce the necessary lure action.

To take rock bass in water deeper than four or five feet, switch to a small leadhead jig (about 1/8-ounce). Jigs are effective at any depth, but they get down quicker and can be kept in the strike zone longer than most other lures. Marabou-type jigs or soft-plastic grubs in conjunction with painted or unpainted jig heads bring strikes.

I am particularly impressed with scented grubs. I can't say that they make more fish strike, but there is little doubt that fish hold on longer and may even strike repeatedly. Color probably isn't a major factor, but I have had my best action with white, black and pumpkinseed. Like spinners, jigs can also be tipped with some type of bait—crayfish tail, mealworms and worms.

The most important key to successful jig fishing is to keep a tight line even while the jig is dropping. If any slack line develops, you will not be able to detect the strike. Some of the best rock bass fishing I have ever experienced has been the result of simply standing on a dock and dropping a small jig straight down. The fish shoot out from under the dock or timbers supporting the dock and nail the lure on the drop with a sharp jolt.

In late afternoon or early evening, switch to small surface lures such as the torpedo-types or small jitterbugs and chuggers. One of my personal favorites is to cast a three-inch silver-and-black floating minnow. Let the lure sit for a few seconds before beginning a stop-and-go retrieve with an occasional twitch while the lure lies quietly on the surface. Strikes can come at any time during the retrieve or while the lure lies motionless on the surface.

Live baits

If the pressure were really on and I had to produce some rock bass, my bait of choice is live minnows with small crayfish or pieces of crayfish tail running a close second. Minnows of about two or three inches long are best. My minnow rig consists of a

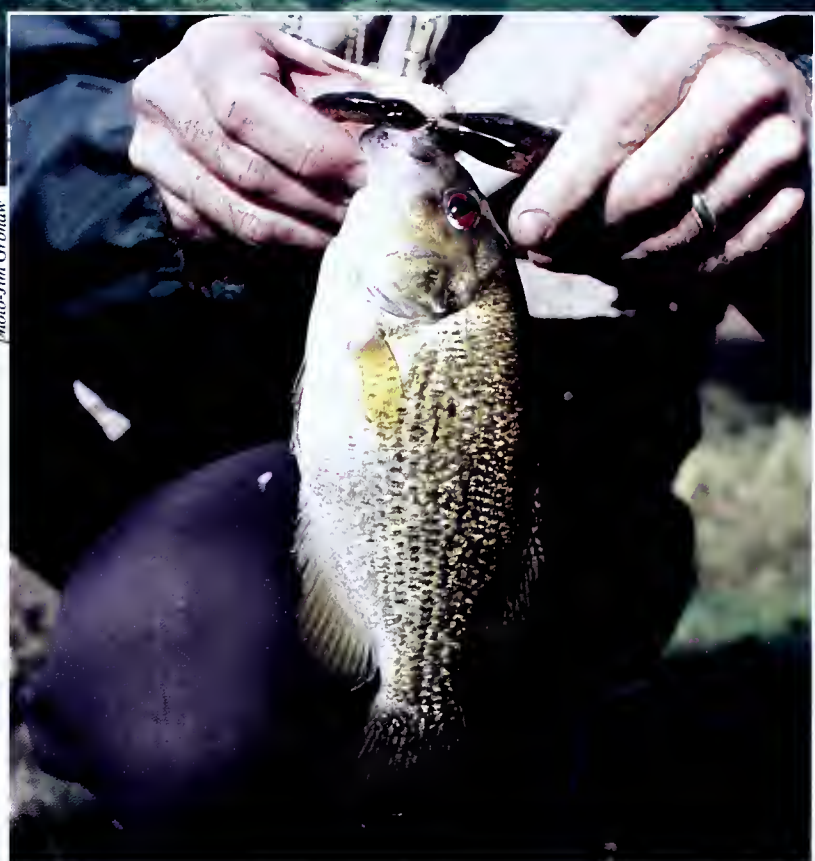


photo-Jim Gronaw

size 14 treble hook and a two-foot piece of four-pound-test monofilament. I tie a loop at each end of the line. Hook one end to the snap swivel coming from your rod. Thread the other loop into a minnow needle and thread the line into the mouth and out the vent of the minnow. Thread the loop through the eye of the treble hook and then over the hooks. Pull the line up snug and push the shank of the treble hook into the vent behind the anal fin. I often put a few splitshot on a foot above the minnow to keep the rig running about a foot beneath the surface. Retrieve the minnow rig as you would retrieve a spinner.

For crayfish or crayfish tails, I prefer to cast and dead-drift them just as you would drift a worm while trout fishing. Maintain a tight line while the bait drifts naturally with as little weight as possible. When you feel a tap, set the hook immediately. Fish worms, hellgrammites, mealworms, leeches or any other live bait in the same manner.

The Susquehanna and its tributaries provide some fine rock bass fishing, but don't limit yourself to these waters. The Susquehanna and its tributaries are only a portion of the Pennsylvania waters that hold rock bass, and you can probably find great action within a half-hour of your home.





TWO-WAY TROUT

BY ROBERT L. PETRI

The hardwoods on the towering ridges showed the first tinges of autumn color as I traveled the dirt road that parallels the Trophy Trout Project on Tioga County's Cedar Run. The day had been warm and muggy, and now as late afternoon arrived, I could feel the beginnings of a late-September thunderstorm. A rising southwest breeze turned the crimson-edged leaves up on their backsides along the ridge line, and on that same horizon, dark clouds began to accumulate and I heard the murmur of distant thunder.

I was not deterred by the approaching storm. I had a stretch of the stream in mind where I loved to use a fly rod to drop big deer hair ants and beetles gently within striking distance of Cedar Run's wary stream-bred browns and brooks. This

has always been my favorite way to fly fish for wild trout.

Even though Mother Nature was conspiring to cut my outing short with a healthy dose of wind and rain, I still parked the car, assembled my gear and made for the water with a high level of anticipation.

The first few pools each yielded a pair of small browns to an outsized deerhair ant. The wind continued to rise and the sky grew steadily darker as the storm inexorably traveled up the Pine Creek valley. I knew I didn't have too much longer to fish, and I quickly made my way to a favorite pool up around the next bend. Standing in the riffle below the tail of the pool, I delivered a long cast to a rock-studded pocket near the bank. The ant splatted on the quiet surface and immediately disappeared in a large swirl.

I set the hook, and 13 inches of wild brown trout catapulted out of the water. In deference to the 6X tippet connecting me to the fish, I applied the pressure of the rod cautiously, and after another leap and a few determined runs, I brought the fish to hand and quickly released it.

photo-Mark Dauberman



I had no time to bask in the afterglow of the catch. As I watched the trout swim away, a rolling crescendo of thunder announced that I had overstayed my welcome on the stream. I retreated quickly toward the car, and arrived there just as the first serious sheets of rain roared up the valley, accompanied by a driving wind and some extensive fireworks in the sky. As I sat in the shelter of the car, I felt fortunate to be still relatively dry.

The downpour continued for the better half of an hour, and through the rain-streaked windows I watched the stream react. The water gradually lost its clarity, and streamside clumps of grass and rock became inundated by the rising flow. There would be no more probing with dry flies today. It was time for a change of tactics.

After a while, the rain subsided to a light drizzle and then stopped altogether. Emerging from the refuge of the car, I quickly picked a small ultralight spinning outfit from the car trunk with a light vest holding only a single box of small spinners in various color combinations. Left behind were the \$300 fly rod and the vest of a thousand pockets.

It was time to travel light and have some fun. I knotted a gold spinner to my line and headed toward the water I had just fled less than an hour before.

Working upstream I cast to likely holding positions. My third cast was stopped by a flash of yellow-gold when a 10-inch brown intercepted the spinner in the murky flow. I quickly played and released him, and on the very next cast his twin followed suit.

The fishing just got better. An hour and

a half-mile of stream later, I tallied 11 browns and six brook trout.

As I contentedly made my way back to the car, I thought about the benefits of

to do, and it had greatly increased my success. It can do the same for you.

Nothing delights the fly fisherman more than a heavy hatch of insects and rising fish.

However, during the season, water levels and temperatures make your fly rod not the most effective fish-catching tool. This can be particularly true during the fickle mix of weather that September in Pennsylvania can dish out to the small-stream trout fisherman.

Conversely, early fall's warm afternoons can provide some of the best dry fly action of the year. Knowing the right tactics and methods in these changing conditions can make you a better trout fisherman.

If you are a dyed-in-the-wool fly fisherman who is willing to give ultralight spinning a try, September is the month to take the plunge. Clear, cold nights can often drop the morning water temperature in our mountain freestone streams well into the 40s. Trout become less inclined to rise to a fly at these times, but a well-placed spinner can be deadly.

The best gear for this type of fishing is a small ultralight graphite spinning rod in the five-foot to 5 1/2-foot range. Your reel should have a high retrieval ratio, at least 5:1 or higher, and it should be spooled with a high-quality monofilament in four-pound test. In higher stream flows, you can get away with six-pound test.

Spinners

On the business end of your line should be a bigger spinner than what you might imagine. Much of the literature on ultralight



becoming a "two-way" trout fisherman, one who switches from fly to spinner and back again as conditions warrant. It was easy

spinfishing for trout recommends spinners in size 0 and even smaller. But these smaller lures don't have sufficient heft for the casting methods that serve the small-stream spin fisherman best, nor do they get down where the trout are in the faster runs and pockets that provide much of the holding water in our streams. You're better served by carrying a selection of size 1 spinners in a variety of colors and styles.

Gold, silver and copper spinners should comprise the majority of your selection, but make room for a few with white or black blades. The muted flash of a black-bladed spinner has saved the day for me more than once when the water was low and the fish were particularly skittish.

Spinner tactics

The most effective tactics for spinfishing small streams are similar to those you would use if you were searching the same stream with a dry fly. You should work upstream and cast as close as possible to likely holding water. You want to concentrate on places like undercut banks, sunken logs and rocks that lay close to or in the main flow, and try places where a trout can rest and wait for the current to carry food past his station, like the zone of slack water just to the side of where a riffle enters a pool. Cast as close to this cover as you can.

This tactic is going to cost you a spinner now and then, but you will catch more trout. Never make your first cast into the deep water in the center of the pool. This has the same effect as hiring a brass band to announce your arrival, and it spooks every fish within casting range. Work the edges and cover instead.

September streams

Even though episodes of high and discolored water like those I encountered on Cedar Run earlier are possible, they are the exception rather than the rule. The streams of September are usually at or near their lowest flow rates of the season, and stealth is vital.

Approach pools and other holding water slowly and cautiously, staying as far back as possible to deliver your cast. Learn to make accurate casts with a sidearm or underhand motion. This minimizes the likelihood of disturbing the fish with the motion of your casting arm and rod.

Clothes in subdued shades of green and brown help mask your approach. Leave the white or red hat at home. A pair of polarized sunglasses helps you see fish before they see you.

Afternoons

Even though many September mornings can be cold and unproductive for the fly fisherman, afternoons are another story. The early autumn sun still carries enough authority to warm Pennsylvania's small free-stone streams into the 50s and 60s. The trout, sensing the changing season, feed actively, and the warmer September afternoons get them looking upward.

This is the time of the dry fly fisherman. So, come about lunchtime, plan to be back at the car to switch gear to meet the new opportunities created by the force of the midday sun on the water.

Dry flies

Dry fly fishing for small-stream trout in late September is an altogether different ball game from the hatch-filled days of May and early June. Most of the major mayfly and caddis fly emergences are gone for another year, and the trout are more keyed in on things that look like food in general than they are on any particular aquatic insect.

There are exceptions to this idea, of course. September does offer limited opportunities to fish over hatches of *Isonychia* (Slate Drakes) and *Paraleptophlebia* (Blue Quill) mayflies, and you should be prepared to meet them by carrying an assortment of Slate Drakes in sizes 12 and 14 and Blue Quills in size 18. The more fertile streams can also show the September angler fishable hatches of *Baetis* (Blue-Wing Olives) and *Tricorythodes* mayflies.

Terrestrials

You should be prepared to meet these hatches, but they won't be the bread and butter of your September fly selection. In the early fall, just as any other time of the season, the best fly to fish is the one that most resembles what the trout are accustomed to seeing. In September, this means terrestrial insects. In September, the banks of most small trout streams carry an abundance of ants, beetles, grasshoppers and crickets. The wind, rain and the sheer numbers of these insects ensure that a large number of them wind up in the stream, available to the waiting trout.

Make the most of this situation by carrying a well-stocked box of terrestrial imitations for these September afternoons. Particularly effective are deerhair ants and beetles in sizes 10 through 20 and Letort Hoppers and Crickets in sizes 8 through 16.

I favor the larger sizes of all these flies for a number of reasons. For one thing, bigger flies are easier to see. But more

importantly, September trout in our small streams are opportunistic feeders, and they will travel some distance to intercept their intended prey. The splat produced by a size 10 or 12 ant hitting the water rings a considerably louder dinner bell than the tiny plop produced by a size 18 or smaller fly.

Fly fishing gear

Tackle and tactics for the early autumn fly fisher on our small streams are greatly influenced by the usually low stream levels and the accelerated feeding activities of the fish. A fly rod of seven to eight feet balanced for a line in the three- to five-weight class is about right.

The shorter rod gives up a little on casting distance but is easier to use along the more brushy streams. The reverse is true of the longer rod. A 7 1/2-footer is a reasonable compromise.

Your leader should be in the seven- to nine-foot range depending on stream size, and it should taper to 4X at a minimum, preferably 5X. Some low water calls for 6X, especially on the more heavily fished waterways like special regulation areas. For the most part, 5X is your staple leader strength.

Searching for trout

Dry fly fishing in September is an exercise in searching the water. Don't sit on a rock and wait for a rising fish to show. You could fall asleep. Actively search the water with your fly, paying special attention to cover and holding water that adjoins the stream banks. These are the places where the trout wait for the next misguided ant or hopper to drop into the water.

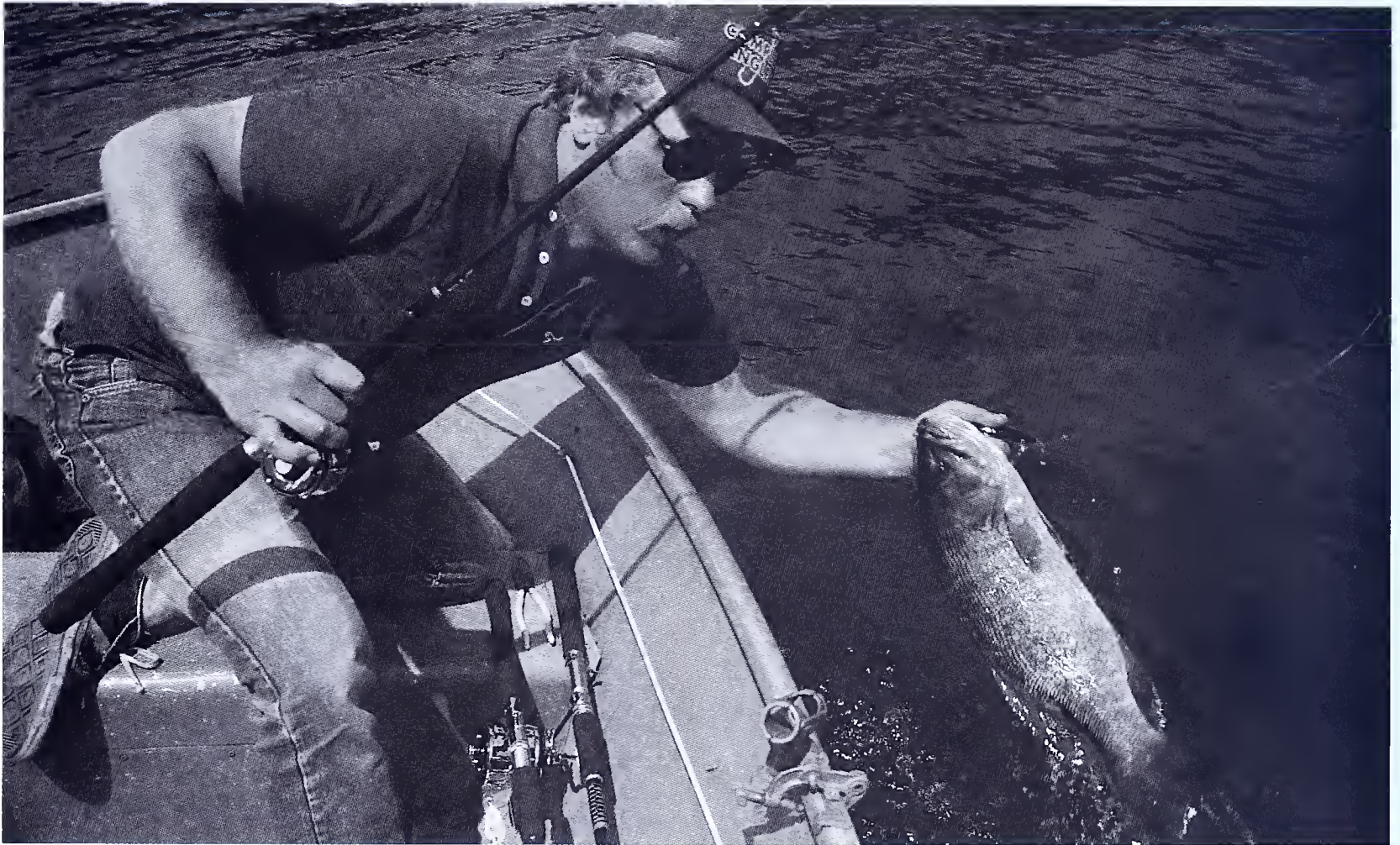
When you fly fish, you are carrying one trump card you did not have earlier in the day when you were spinfishing. An occasional larger fish can prove difficult and resistant to your offering. Within your fly box you have the variety available to try this fish with a number of different flies, in different sizes and patterns. One usually strikes the proper chord with the trout. With a spinner, you lack this versatility.

Spinfishing and fly fishing both have their times on the streams of September. The low water temperatures that can prevail on autumn mornings are cues for the two-way trout fisherman to reach for the spinning rod. So are those times when the water is high and slightly discolored.

But be prepared for the golden autumn afternoons and their increasingly active fish by having your fly rod gear ready. Switching gear gives you the best of both worlds and lets you catch a lot more trout.

ACROSS of the *Middle Allegheny*

by Mike Bleech



The middle Allegheny River was a wondrous place for smallmouth bass fishing when I fished the eddies from Warren to Tidioute in my wooden boat during the early 1960s. Thinking back on that fishing, I doubt there is a river left anywhere with smallmouth fishing that good. That was what was on my mind when I slid my canoe into the river last fall, at the Commission's Starbrick Access.

A few hundred yards below the launch the river splits around Leek Island. I took the right channel because there wasn't enough water to get through the narrower but more remote left channel.

As soon as I could lay down the paddle at the bottom of the swiftest part of the riffle, I started casting a fire tiger Thunderstick. During the first two retrieves I thought I had thumps, but I convinced myself it was just rocks. Then on the third retrieve I hooked one of those thumps. From the way the fish turned its side to the current and bore to the bottom, then rocketed toward the surface, I figured I had my first smallmouth of the afternoon. Instead, a 16-inch brown trout made two jumps and then resumed the fight closer to the bottom.

That should not have been a surprise. During my previous float a week earlier,

I caught an 18-inch brown in about the same place. Trout fishing has been improving in the river since the Commission began a fingerling stocking program there. Now any hit is as likely to be a trout as it is a smallmouth, at least from the Kinzua Dam downriver halfway to Tidioute.

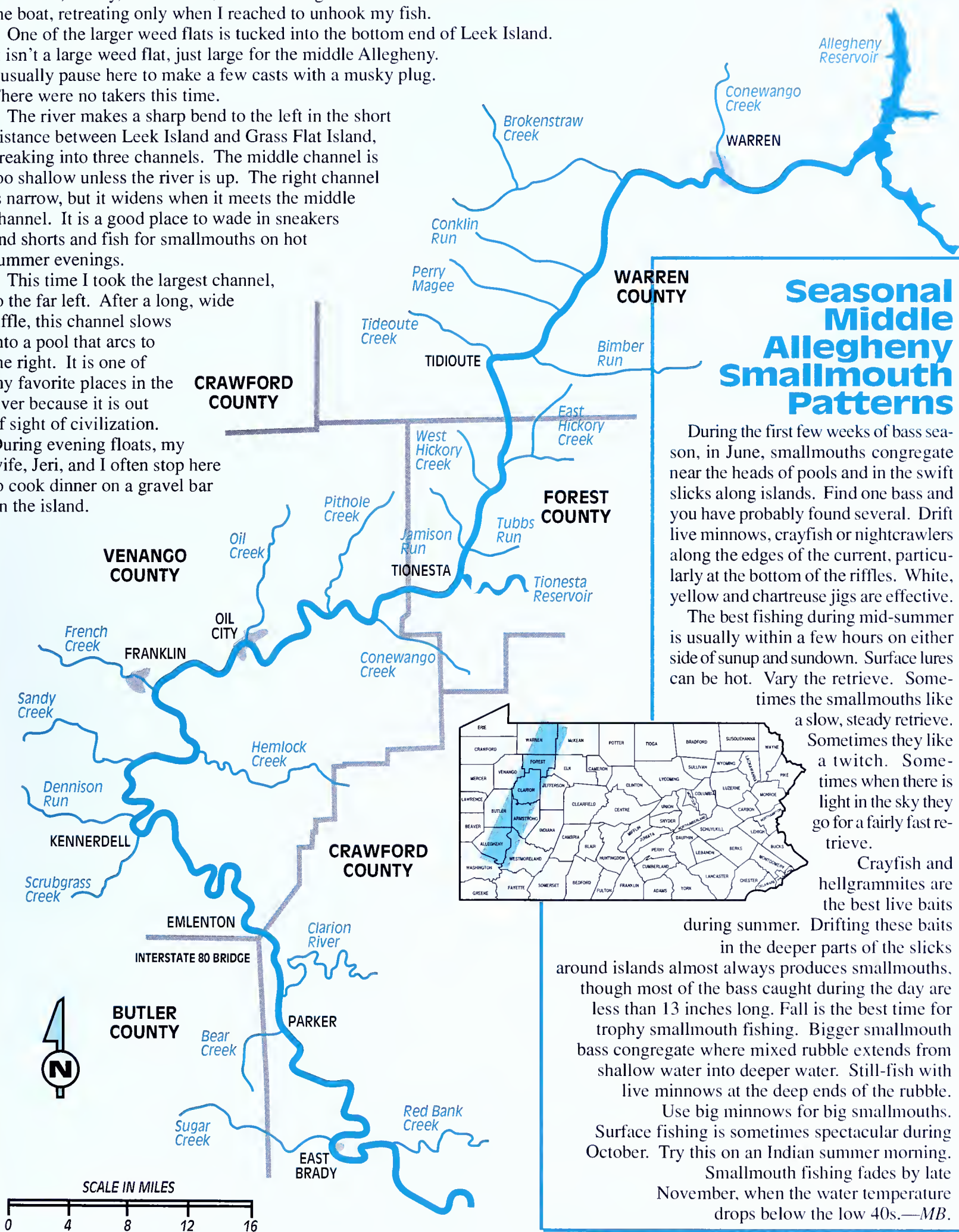
The main channel along Leek Island is narrow and swift. You don't get many casts here without dragging an anchor. Some anglers use a piece of heavy chain or an old window sash to slow the drift in places like these. Sometimes I do this, but usually I don't bother. There is a lot of good smallmouth water ahead.

The first smallmouth of the float struck about midway down Leek Island. It was a 13-incher, stocky, dark brown, and full of fight. Another of similar size followed it to the boat, retreating only when I reached to unhook my fish.

One of the larger weed flats is tucked into the bottom end of Leek Island. It isn't a large weed flat, just large for the middle Allegheny. I usually pause here to make a few casts with a musky plug. There were no takers this time.

The river makes a sharp bend to the left in the short distance between Leek Island and Grass Flat Island, breaking into three channels. The middle channel is too shallow unless the river is up. The right channel is narrow, but it widens when it meets the middle channel. It is a good place to wade in sneakers and shorts and fish for smallmouths on hot summer evenings.

This time I took the largest channel, to the far left. After a long, wide riffle, this channel slows into a pool that arcs to the right. It is one of my favorite places in the river because it is out of sight of civilization. During evening floats, my wife, Jeri, and I often stop here to cook dinner on a gravel bar on the island.



Seasonal Middle Allegheny Smallmouth Patterns

During the first few weeks of bass season, in June, smallmouths congregate near the heads of pools and in the swift slicks along islands. Find one bass and you have probably found several. Drift live minnows, crayfish or nightcrawlers along the edges of the current, particularly at the bottom of the riffles. White, yellow and chartreuse jigs are effective.

The best fishing during mid-summer is usually within a few hours on either side of sunup and sundown. Surface lures can be hot. Vary the retrieve. Sometimes the smallmouths like a slow, steady retrieve.

Sometimes they like a twitch. Sometimes when there is light in the sky they go for a fairly fast retrieve.

Crayfish and hellgrammites are the best live baits during summer. Drifting these baits in the deeper parts of the slicks around islands almost always produces smallmouths, though most of the bass caught during the day are less than 13 inches long. Fall is the best time for trophy smallmouth fishing. Bigger smallmouth bass congregate where mixed rubble extends from shallow water into deeper water. Still-fish with live minnows at the deep ends of the rubble.

Use big minnows for big smallmouths. Surface fishing is sometimes spectacular during October. Try this on an Indian summer morning.

Smallmouth fishing fades by late November, when the water temperature drops below the low 40s.—MB.

This pool is almost always good for a fish or two, so my confidence level was high. It was rewarded by a sharp strike on the first cast. A 10-inch smallmouth launched itself out of the shallow water, flipping end over end. It threw the lure as if it were trying for distance.

I quickly retrieved and cast back to the same place, now about as far behind the canoe as I could cast. I had to twist into an uncomfortable and clumsy position to make the cast, but it was worth the effort. A 14-inch brown trout attacked the lure before I made a full turn of the reel handle. As if to accommodate me, the canoe spun in the current so that I faced the trout as it fought my light spinning rig.

Movement on the main shore caught my attention. I peered into the thick bottom-land vegetation and watched a doe and two nearly full-grown fawns walk nervously out of sight. Deer often bed in this area, and both deer and bears cross onto the island here.

The current pushed my canoe into the relatively slow water near shore. I took advantage of the slow drift to work a brown-and-orange jig through the pool. A 14-inch smallmouth and a 17-inch walleye were the results. I bled the walleye and put it in my small cooler. It would be my dinner.

A small, shallow pool below Grass Flat Island is one of my favorite places for smallmouths. Often I can coax a large smallmouth from the cover of a boulder near the center of the pool, but not this time. I paddled through the rest of the pool and through the next long pool.

I was anxious to get to the Buckaloons pool, where I spent most summers during my early teens. This is one of the longest pools in the middle Allegheny. I worked my minnow-shaped lure around boulders on the left side of the river, where 30 years before I had caught my first four-pound smallmouth. But the smallmouths, all fish, for that matter, were not in the mood for a fight.

The bite that was going on when I started the float had apparently ended. I continued my float, fishing through some beautiful water without so much as a bump. At 5:30 I slid the bow of my canoe onto an island for a shore dinner.

Several islands have been designated as wilderness areas. Low-impact camping is allowed.

In the cooler, strategically placed toward the front of the canoe for balance, were the ingredients for a gourmet meal, which would be cooked in the small charcoal grill that was packed beside it. There was a bag of



Lures and Baits for Middle Allegheny Smallmouths

Smallmouths in the middle Allegheny behave much like smallmouths in any of the classic smallmouth rivers. Lures should usually be small and colored naturally. Crayfish, hellgrammites, nightcrawlers and minnows are the favorite live baits.

Rig live baits simply, with a small to medium-size splitshot and a fine-wire hook. A size 4 hook is about right for crayfish and large minnows; a size 6 hook for hellgrammites and nightcrawlers.

Lead-head jigs with plastic bodies are probably the most versatile lures you can use. Try white, yellow or chartreuse during June, October and November, and natural colors such as smoke during summer. The most common mistake made by jig anglers is using heads that are too heavy. A 1/8-ounce head is most useful.

Though not used by many middle Allegheny anglers, a small spinnerbait arm clipped onto a jig head is a very effective lure.

Crankbait selection should include shallow-runners and deep-divers. I like minnow-colored shallow-runners and crayfish-colored deep divers.

Surface fishing is most productive during summer evenings and during early fall. Twitching a minnow-shaped lure is one of the most effective surface methods.

When I float, I usually keep three rods rigged and ready. One is rigged with a minnow-shaped lure, one with a jig, and another is a beefy outfit rigged with a musky lure, because this is also one of the best places in the country for musky fishing.—MB.

fish coating, a potato already partially cooked in a microwave, cooking oil, assorted spices, margarine, a lemon wedge, a bottle of catsup and a jug of fruit juice. There was also a sausage and a big hard roll, in case I hadn't been able to catch dinner.

The sun sank into the orange horizon a half-hour before I reached the end of my float, the mouth of Conklin Run, where my van was waiting. A nearly full moon lit the river bright enough to thread line through lure eyes without the aid of a flashlight. A great horned owl flew across the river, silhouetting against the moon as if staged by a Hollywood production company. It was a glorious night to be alone on the river. The words for all of the magazine articles that had been troubling me flowed with grace.

There is a lot more to smallmouth fishing on the middle Allegheny than catching smallmouths. In the three hours or so since I had caught that last smallmouth, my mind had drifted on to other things. I was casting and retrieving mechanically. That is when the biggest smallmouth I had hooked in the river in several years attacked my lure with a rush that carried it out of the water, sending a spray for 15 feet. So peaceful had it been before, and so violent was the surface battle this smallmouth raged, that I felt ashamed at causing such a fuss—for a moment. Who was I to upset the tranquility of this deep valley? Then my mind got back into the game.

The big smallmouth tired of the jumping and dived toward a cluster of boulders. I knew my four-pound test line would part if the bass scraped it across the rough boulders, so I applied as much pressure as I dared. This turned the run, and the bass came to the surface again, but it just flopped. It no longer had the strength to clear the water. It was just a matter of getting my thumb into the fish's mouth.

That smallmouth was 19 1/2 inches long and weighed every bit of 4 1/2 pounds. I paused to admire the way its bronze back glittered in the moonlight for a brief moment, and then I gently lowered it into the river.

The bite was on again. The last smallmouth I caught was on my last cast. As I released it I noticed that I was just then drifting past my take-out place.

I still remember the smallmouth fishing as being better three decades ago. At the same time, I am sure 30 years from now I will look back on these times as good old days, and the smallmouth fishing in the middle Allegheny as simply wonderful.

Float Fishing the Middle Allegheny River

The middle Allegheny River extends from the Kinzua Dam downriver to the upper navigation pool, which is created by a dam at East Brady, 130 miles downriver. Some 85 miles of the middle Allegheny were recently added to the national Wild & Scenic River System in the recreational category. Several convenient access points, including at least 22 public access areas, make floats of just about any length possible.

The upper starting point is the Corps of Engineers boat launch at the Kinzua Dam tailwaters. From the tailwaters to Warren is the best stretch for trout fishing. Smallmouth fishing generally improves farther downriver.

Some good one-day floats for smallmouths are from Buckaloons to the Bonnie Brae access, 16 miles; from Tidioute to West Hickory, 9 miles; Tidioute to Tionesta, 14 miles; and from Franklin to Kennerdell, about 15 miles.

A map with a list of river access points is available for one dollar from the Western Pennsylvania Conservancy, 316 Fourth Avenue, Pittsburgh, PA 15222. The phone number is (412) 288-2777.

The middle Allegheny is a series of riffles and pools. The pools generally get longer and deeper downriver. When the channel divides around islands, even canoes might scrape the bottom. The riffles are typically around the islands.

Nearly any small, safe craft is suitable for float fishing here. Canoes are popular. Cartop boats with small motors are used by most of the serious local anglers. Jet-powered outboards have become popular during the past few years.

Canoes can be rented at many places along the middle Allegheny. They often provide pick-up service, so you do not have to park vehicles at both ends of the float. Tourist agencies help you contact canoe rentals.

For more information, contact:

● Travel Northern Alleghenies, P.O. Box 804, Warren, PA 16365.

● Forest County Tourist Promotion Agency, P.O. Box 126, Tionesta, PA 16353.

● Venango County Area Tourist Promotion Agency, P.O. Box 147, Emlenton, PA 16373.—MB.



Crayfish, hellgrammites, nightcrawlers and minnows are the best baits for Allegheny River smallmouth bass. Use size 4 fine-wire hooks for crayfish and minnows, and size 6 hooks for hellgrammites and nightcrawlers.

Game Plan for Late



Summer Largemouths

by Michael Lacy

When bass season opened in June, you were catching largemouths by casting spinnerbaits and crankbaits toward the shoreline. A hen mallard was leading its dozen miniature ducklings through the emergent vegetation in shallow water. Skilled anglers were catching bass.

Now, the anglers who are still casting toward the shoreline are catching just a few small bass or panfish, but they are mostly cursing their luck and the thick weeds, wondering where the bass have gone.

Are those easy, shallow-water largemouth bass that gave such great sport earlier in the season gone?

Yes, they are gone—a large portion of them, anyway. In spite of the catch-and-release movement among bass anglers, enough anglers keep bass to eliminate most legal-size, easy-to-catch bass. There are plenty of bass left for good sport, though. But you have to work—make that play—a lot harder to catch them now. You need a game plan.

A game plan for September largemouths begins with finding the bass. You can bet they won't be where most anglers are fishing, in those same places where they caught bass a few weeks ago. Consider the following largemouth bass hang-outs, accompanied by specialized methods for catching bass there.

tant factor, except where oxygen content or pH might make deep water inhospitable for bass. One reason why mid-lake structure provides good fishing is that it is hard to find and hard to fish. Casual anglers, who are most apt to kill the bass they catch, seldom contact these bass.

The key to deep-water honey holes is food. I believe abundant food is the only reason why bass congregate during late summer. Looking for scattered bass in deep water away from visual markers along the shoreline is tedious work with minimal rewards. If you are going to take the time and effort to look for bass in deep water, you want to find schools of bass. Watch your sonar for schools of shad or other small fish. The areas where you see the most life on your sonar, where bass find the most to eat, are the areas to look for deep structure. Schools of bass ambush schools of small fish from their "home" structure or cover.

Lead-head jigs are effective, versatile lures for deep, mid-lake bass. They can be worked at virtually any depth, and bass try to eat them when they are in any mood short of completely non-aggressive.

A selection of lead heads in sizes 1/8-ounce to 5/8-ounce lets you work any depth down to at least 40 feet, or to 30 feet in stiff wind. After many years of experimenting with every jig head



Peg your worm sinker with a round toothpick so that the sinker doesn't slide on the line.

Jigging bass from deep structure and cover

Largemouth bass often congregate over relatively deep mid-lake structure, especially where there is cover such as sunken brush piles, log jams or rock piles. Look for humps or any irregular structure. In manmade reservoirs, look for creek channels and manmade structure such as building foundations, road beds or bridges. The best places along long structures like road beds or creek channels are typically bends, cover or intersections with other structure.

Deep mid-lake structure might be 10 feet deep in a shallow lake, 30 feet deep in other waters. Depth is generally not an impor-

style I could get my hands on, I have decided, at least for now, that the good old round head is as good as any. There is no need to get complicated about jig head color. Color can be an important factor, but it can be applied easier with plastic jig bodies. Some successful anglers do not even bother to paint jig heads. I prefer painted heads, black with contrasting eyes.

I asked Darl Black, outdoor writer, *Angler* contributor and an expert jig fisherman, about his favorite jig bodies for jigging over mid-lake structures.

"There are two. One is the five-inch Mister Twister curly tail,

For the best results, fish early in the morning or in the evening, when boat traffic lessens.



Photo-Joe Winkosky

and the other is the four-inch Charlie Brewer slider worm on a spider slider head," Darl says, adding that he uses the slider worm when the bass are not aggressive.

I have fun with soft plastic jig bodies. My tackle boxes are loaded with hundreds of styles and colors. However, if I wanted to keep things simple, I could get by with the Mister Twister curly tail grub and sassy shad bodies. The most productive colors for me have been black, blue, various shades of brown, and white.

Work the jigs close to the bottom and right in cover. Don't be afraid to lose a few jigs, because you most certainly will if you get your lures close to bass. Vary the retrieve from a slow crawl to an erratic hopping motion.

Sensitivity is critical with this method. A bass can inhale and

expel your jig without your detecting it, so it pays to have the most sensitive rod you can find. I prefer a one-piece, extra-fast-action, high-quality graphite rod, 5 1/2 feet to 6 1/2 feet in length.

Weedy flats

The flipping technique was developed to catch bass in weed beds. A long rod, usually 7 1/2 feet, is used to flip a jig-and-pig into open pockets in the weed beds. This is not a lesson in flipping, but a variation of the method that gets your lure in front of bass that most flippers can't reach. I assume you know how to flip.

In any lake that has weed-covered flats, you can bet that a good share of the largemouth bass, probably most, spend the summer in the weed flats. This is classic largemouth bass habitat in natural

lakes. Skilled bass anglers catch bass from weed flats by flipping snag-resistant jigs or Texas-rigged plastic worms into openings or along the edges, or by working surface lures on the top of the weed beds. This leaves most of the weed-covered flats, the areas where thick weed mats cover the surface, untouched.

Most anglers consider the water under thick weed mats unfishable. There is a simple way to fish this productive water, though, using weedless rigged plastic worms and heavy egg sinkers.

Fred Lorenzo, a successful bass tournament angler in Pennsylvania and other Northeast waters, suggests a size five keeper hook and a 3/4-ounce or one-ounce egg sinker. He pegs the sinker to the line with a round toothpick so it doesn't slide on the line. Pegging the sinker directly in front of the worm makes this rig practically weedless, more so than any other bass lure I have used.

The heavy sinker is the secret to this rig. It plunges through the surface weed mat, down to the bass underneath. Bass do not seem to mind the heavy sinker a bit.

Do not use extremely soft worms, because weeds tear them from the hook too easily. I like a bulky eight-inch worm. Purple, blue and red, maybe with some metal sparkle, have been my most productive colors.

Other than the minor modification of the terminal rig, standard flipping gear is perfect for this type of fishing. The long flipping rod helps you reach away from the boat and haul big bass out of thick slop. Use heavy line, at least 17-pound test.

You can expect to catch some of the biggest bass of your life with this method.

Topwater lures morning and evening

Nothing beats topwater action for excitement. Furthermore, topwater lures are effective at the right time and in the right place. When the lake surface is reasonably calm, when speed boats and water skiers are not scaring the bass, and when a surface lure is easy to see, topwater lures often trigger more strikes than other lures.

A topwater lure might not appeal to bass as some other lures, but because it covers so much water quickly, many more bass sense topwater lures. This is the key to success with topwater lures. Do not beat one small area to a froth. Move as quickly as you can to cover the water thoroughly. Using one of the faster topwater lures, you can cover water twice as fast as you could with a crankbait, and 50 times faster than you could with a plastic worm.

Use topwater lures early in the morning before boat traffic stirs the water and at night after the lake has calmed from daytime boating activity. Boat traffic and other human activity is a major influence on the bass in most waters. The lake should be quite calm so the topwater lure and the surface commotion it causes stand out. Waves are all right if they are gentle, but a sharp chop hides surface lures.

The common types of topwater lures are poppers, propeller lures, buzzbaits, stickbaits and weedless lures. There is no reliable formula for determining which is best at any given time, except that the lures that create the most commotion are generally best when there is some chop on the water.

Buzzbaits cover water faster than most other lures. They are built on wire frames, some on a modified "U" frame and some on straight wires. The propeller-style spinner blades make a plooping, clanking noise when pulled across the surface. Most buzzbaits are heavier than water, so they sink when dropped into the water, but they rise to the surface when retrieved fast enough. Start the retrieve as soon as the lure strikes the surface, before it has time to sink. Then retrieve just fast enough to keep it on top.

Poppers have flat or concave fronts that make a *pop* sound when they are jerked forward. The standard retrieve is a series of short jerks, sometimes so slowly that the ripples disappear between pops, sometimes as quickly as you can retrieve the slack line between pops.

Stickbaits are retrieved in a series of very short jerks. These lures dart to one side or the other after each jerk. They are the most difficult surface lures to manipulate.

Propeller lures have center-shaft spinner blades at either or both ends. Sometimes they are retrieved like poppers, sometimes like buzzbaits, and sometimes like stickbaits, if they are balanced properly.

Use these surface lures anywhere you think bass might be. Because of the speed with which you can cover water, topwater lures are at their best where bass are scattered over large areas, like weedy flats.

Weedless topwater lures in the slop

By late summer, aquatic weed growth has reached its maximum. In some places the water surface is covered with a thick mat of weeds. Lures with exposed hook points or moving parts can't get over this slop. We already looked at a way to fish through the slop, with heavy sinkers and weedless rigged plastic worms. To fish on top of the slop, you need lures every bit as snag-resistant. Special topwater lures are made just for this purpose.

Top slop lures come in various shapes, usually imitating some sort of critter a bass would naturally see scurrying over the weed mats—frogs, snakes or tiny rodents. What these lures have in common is that they are made of soft plastic, usually hollow, and the hooks are protected from snagging on the weeds by the plastic body. When a bass strikes the lure it collapses the body, exposing the hook or hooks.

Top slop lures, my name for them, don't have any wiggling, wobbling or spinning action as they are retrieved. Bass go for them anyway. Actually, they look much like natural foods, more so than most bass lures. All of this is superfluous, because the bass get only glimpses of the lures, which are hidden from the bass's point of view by the surface slop. Bass sense the presence of the lure as they sense the presence of natural food, just as you might hear a squirrel in your attic.

Be patient when using these lures. They cannot, or at least should not, cover water as fast as some other surface lures, though they cover water much faster than flipping heavily weighted worms in the slop. Give bass plenty of opportunity to find the lure. Bass can see the lure only as it traverses open pockets, so work it through as many open pockets as possible. Most hits occur in the open pockets, but sometimes bass crash through the slop to get the lure.

This tactic works as well during daylight hours as it does at night, mornings or evenings. Boat traffic and waves do not have as much effect on the slop as they do in open water. Few boats, even those of serious bass anglers, venture far into the slop.

By the way, I suggest a pole for pushing a boat through the slop. Even supposedly weedless electric motors bog down in this stuff.

As with any method for fishing in heavy cover, strong line is a must. I suggest at least 17-pound test. A beefy rod also helps to haul bass out of the slop. A flipping rod works fine, though the rod need not be so long.

All these approaches have something in common. They attempt to put lures in front of bass that are not disturbed by other people—anglers, pleasure boaters or anyone else. You are on the right track using these methods or any others when you think in terms of undisturbed bass.

Pennsylvania's Biggest Walleyes:

When, Where and How Anglers Caught Them

by Bill Porter

The Commission granted 161 awards for trophy walleyes caught in 1991. The minimum walleye size for a Senior Award is 10 pounds and five pounds for a Junior Award.

When

Award-sized fish were caught through all months of 1991. A sample to show the time spread can be observed in the top 10 walleyes reported: January (1), February (1), May (1), June (3), July (2), August (1) and October (1).

Where

Fishermen caught these 161 walleyes in 24 waterways in 20 counties. Lake Erie waters accounted for 130 of these fish, adding one more caught in Presque Isle Bay. Lake Wallenpaupack accounted for three, as did Glendale Lake, the Allegheny River and the Susquehanna River. Two walleyes came from the Allegheny Reservoir plus two more from Beltzville Lake.

Waterways producing one award-sized walleye in 1991 included: Lake Donegal, Canoe Creek Lake, Beechwood Lake, Keystone Lake, Pymatuning Lake, Lake Arthur, Youghiogheny River, Lake Wilhelm, Tohickon Creek and Lake Nockamixon.

Lake Erie continues to be the walleye capital of Pennsylvania. The 1991 total number of award-sized fish of 131 outdid the 1990 figure of 119 by 12.

How

Lures and baits used to catch these big walleyes put hardware over natural baits by a considerable margin. A check of the top 10 walleyes shows this preference. By weight, starting with the top walleye of 13 pounds, 14 ounces, here are the fish attractors: Joe Fly, minnow, spinnerbait, jig, Rapala, shiner, Rapala, nightcrawler, spoon, and a Hot 'n Tot.

The complete list below the top 10 showed a preference for hardware and plastics over the live bait by the award-winning anglers.

State record

The state record walleye record remained intact. That fish weighed 17 pounds, nine

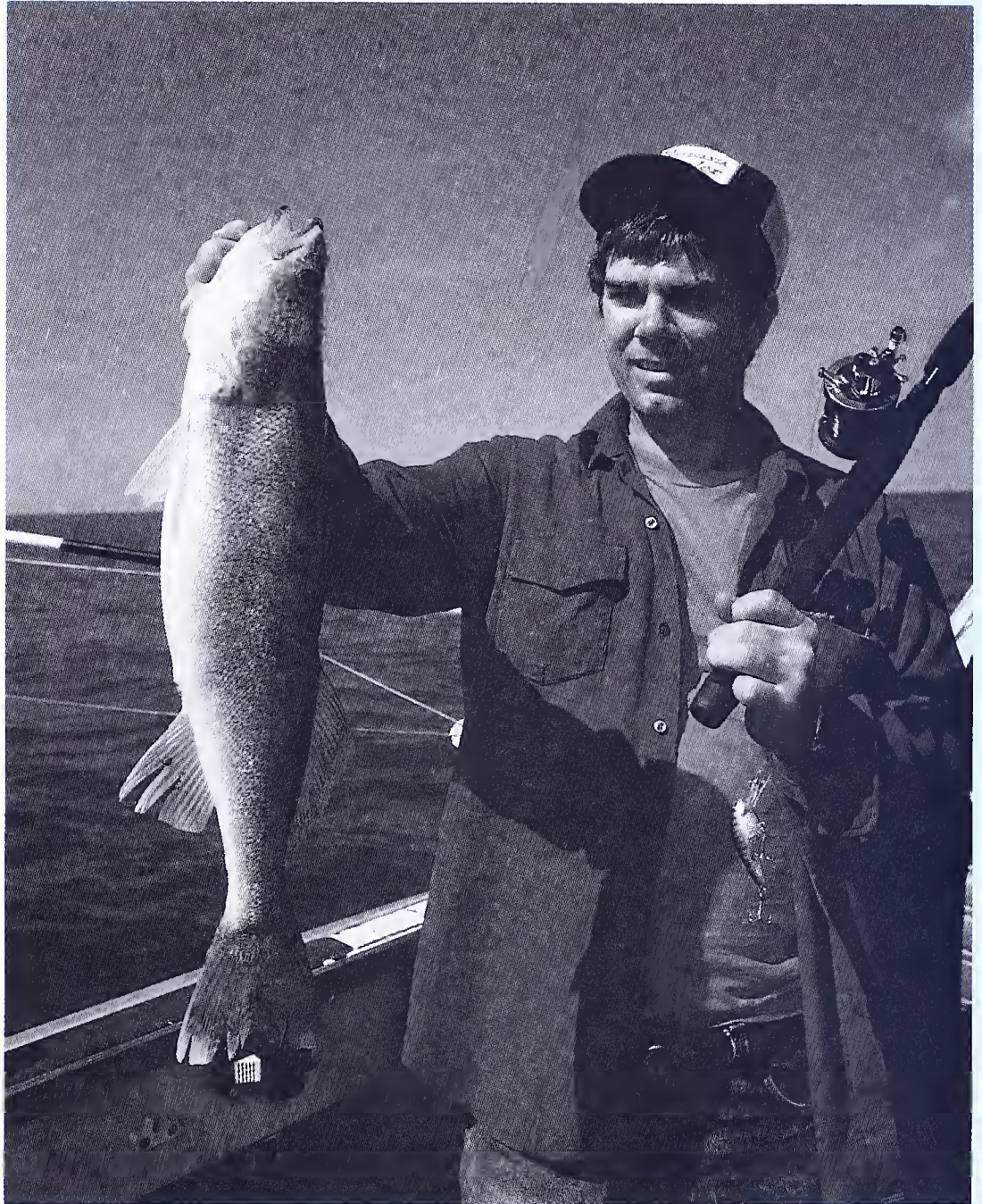


photo- Joe Workosky

ounces and was caught in the Allegheny Reservoir, Warren County, in 1980. Mike Holly, of Bradford, was the lucky angler on that one.

The top fish for 1991 was a 13-pound, 14-ounce fish taken from Lake Donegal, Westmoreland County. Second- and third-place fish weighed 13 pounds, 12 ounces and 13 pounds, two ounces, respectively.

The remaining top 10 walleyes ranged from 12 pounds, 12 ounces to 11 pounds, six ounces. The average weight of the top 10 was about 12.5 pounds.

Your award-sized walleye

Your walleye and other species can be recorded and turned in for awards by submitting the proper application to the Commission's Bureau of Education and Information.

Anglers are invited to send for the guidesheet that explains the Angler Recognition program. For a free copy, contact the Publications Section, Dept. F, Pennsylvania Fish and Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673. Include a self-addressed, stamped business-size envelope with your request.

Angler Contributors Honored

Two Pennsylvania Angler contributors won Pennsylvania Outdoor Writers Association (POWA) awards for articles that appeared in the Angler in 1991. Dave Wolf (left) Commission media relations chief, won the "Best Magazine Column" award for his December 1991 "On the Water" article "A Gift to Behold." Contributor Linda Steiner (right) won the "Trout and Coldwater Resources" award for her article, "The Worth of a Stocked Trout," which appeared in the April 1991 Angler. In the center of the photograph is John McGonigle, POWA Awards Committee chairman, who presented the awards at the organization's annual spring meeting, last May.



Survey Shows Need for More Ramps

Gaining access to the nation's waterways can entail long trips and long waits in many parts of the country, according to boating facilities experts. Correlating recently compiled data that counts just 18,696 public boat launching ramps from coast to coast with more than 16 million boats in use today suggests that as many as 800 craft vie for each access point. "Many states have done a commendable job providing access, but the statistics indicate much more needs to be done," says National Marine Manufacturers Association's (NMMA) Facility Development Director Ron Stone.

Findings of the NMMA Boat Ramp Survey, completed in December 1991, show that a majority of public ramps—60 percent—serve inland lakes or ponds and 27 percent access rivers. The top 10 boat launch ramp facility states are, in order, Minnesota (2,321 locations), Wisconsin (1,610), Michigan (1,101), Washington (898), Oregon (801), Texas (742), Illinois (655), California (644), South Carolina (536) and Pennsylvania (494).

"Progressive state and local planners are learning that the same benefits that accrue to marina facilities are shared with their launch ramp cousins," explains Stone. "Building berths or ramps actually increases demand because the quality of the boating experience improves. With increased use comes benefits to local economies where water-bound outdoorspeople shop, gain sustenance, seek service, and spend and raise tax money."

Drinking, Boating and the Law

Drinking, Boating and the Law is a Fish and Boat Commission pamphlet providing answers to the most commonly asked questions concerning boating and alcohol. The publication offers answers to questions such as: May I drink while on my boat? What is meant by "under the influence"? How many drinks will put me past the legal limit? Is beer less intoxicating than whiskey? How will the law enforcement officer test me to determine if I am under the influence?

For a free copy, send a self-addressed, stamped business-sized envelope to: Publications Section, Department F, Pennsylvania Fish and Boat Commission, P.O. Box 1673, Harrisburg, PA 17105-1673.

Fishermen and boaters, want to learn even more about what the Keystone State has to offer? Subscribe to . . .

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Fishing License Changes

Last March, Governor Casey signed Senate Bill 819 into law (Act 1992-7), affecting senior and lifetime fishing license applicants and non-residents.

In the past, an angler could not purchase a senior license or a senior lifetime license until reaching the age of 65. The new law allows an angler to purchase a senior or lifetime license at any time during the year of the angler's 65th birthday. The law is in effect now.

Senior licenses cost \$2 per year and are available at any one of more than 1,700 issuing agents across the state. Senior lifetime licenses are available only at county treasurers' offices and Fish and Boat Commission offices.

Effective with the sale of 1993 licenses, the non-resident license fee will increase to \$25 (from \$20), and a 7-day tourist license will change to a 5-day tourist license, with the fee increasing to \$20 (from \$15).

House Votes to Repeal User Fee

Last May, the House of Representatives voted to repeal the federal boat "user fee" tax, which affects 4.1 million boat owners.

The House-approved legislation, H.R. 2056, is designed to phase out the user fee in three steps. The fee would be repealed on October 1, 1992, for boats 21 feet or less; on October 1, 1993, for boats 37 feet and less; and all remaining boats by September 30, 1994. Representative Bob Davis (R-MI), chief sponsor of the bill, estimates that nearly 70 percent of boaters required to pay would be exempt beginning this October.

Congress has received mail from constituents objecting to the user fee because none of the money collected—projected at \$718 million over five years—actually goes to the Coast Guard or to any programs benefiting boaters and anglers. Many objected because there is no active Coast Guard where they boat and because the Coast Guard has admitted there would be no improved service to boaters paying the fee.

The repeal effort now moves to the U.S. Senate, where Commerce Committee Chairman Senator Fritz Hollings (D-SC) has introduced a repeal bill, S. 2702. The Hollings bill builds on support already generated by Senator John Breaux (D-LA), who introduced a repeal measure, S. 843, last year.



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

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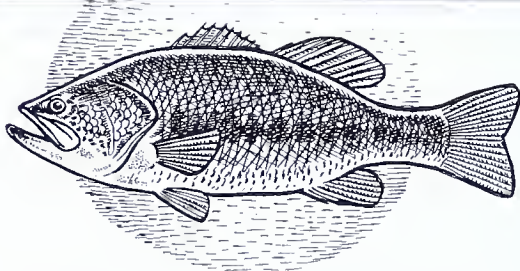
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Angler's Notebook *by Joe Reynolds*



Bass are home-bodies. If a good fish is hooked and lost, return to the same spot a few days later. Chances are the fish will hold at the same location. Try the same tactic after releasing a bass close to where it was caught.

Plan fishing trips around the coming change in the weather. As water temperatures drop from summer highs, all fish become more active. Feeding intensity increases, as do the chances for angler success.

Trout fishermen should concentrate their efforts on catch-and-release streams late in the season. Such waters maintain a constant trout population, compared to streams where fish may be kept.

Deep-water bass fishing may not have all the glamour and excitement of catching fish near the bank, but depths of 15 to 25 feet generally hold the largest and the most bass.

Try a jig-and-pig or plastic worm when fishing around stumps and brush. Work these lures slowly and try a flipping-style cast to minimize noise and effectively work the structure.

Catch and release is catching on. Carry a camera in your vest or tackle box to record a good catch before it's released. Remember—a trophy fish is too valuable to be caught only once.

Concentrations of seagulls often are a sign of feeding fish or concentrations of bait, even on freshwater. So, too, are herons and egrets. Look for bass or other gamefish in areas where these minnow-eating birds congregate.

Plastic worms come in a wide variety of colors. Anglers should experiment with various colors, especially on days when a favorite color isn't producing. A clear plastic worm is often a good bet for clear water.

Dull hooks may be the cause of more lost fish than all other reasons combined. Hooks must be sharp to penetrate the tough areas in a fish's jaw. Buy a hook sharpener and use it frequently.

Crankbaits run deeper on lighter line. A change from 10-pound-test line to six-pound test, for example, may allow a crankbait to run several feet deeper. The extra depth may make the difference between catching or not catching bass.

Take time to stow gear properly during windy conditions on big water. Loose tackle can be damaged when banging around in a boat in rough water. Make sure tackle boxes are closed and latched.

Float tubes are great devices for fishing lakes, but they are often overlooked as a means of fishing the larger smallmouth bass rivers. Float tubes can provide greater stability and comfort for wading anglers. Fins generally aren't necessary because the angler's feet are usually in contact with the bottom.

Sunny days that follow cold spells in early fall are excellent times for bass fishing in the shallows.

illustration- George Lavanish

On the Water

with Dave Wolf

Half Full or Half Empty?

The waters pass on their way to the ocean, and I am disturbed that they are muddied by recent rains and the consequential runoff. I am concerned, too, that the pH of this stream is lower than it should be, and that spawning occurs only in the extreme headwaters and tributaries. My fishing today is bittersweet. The stream is cleaner today than it was 10 years ago, but I'm an impatient person, and I want swift resolutions to the things that plague my fishing waters.

The old adage of the way that you look at things in life haunts me—"Is the glass half full or is it half empty?" The trout have come to my fly readily, and most are wild. Some have moved from the lower reaches of the stream, where a month ago the water temperature climbed above their tolerance level. Some are remnants of preseason and inseason stockings, with an outside chance of carrying over in the stream for at least another year. They will have to compete with the wild trout that reside in this freestone stream, trout that have survived predators and the winters of seasons past.

The heat of early September begins to bear down, and I sit on the needles of a shading evergreen. I watch the water intently as caddises emerge, and I see a large boil engulf a hapless ant that toiled too close to stream-side. The life-and-death struggle of a trout stream and all its creatures great and small are performed before me, orchestrated by nature, that wonderful beast that we as mankind have tried to manipulate most of our years.

This trout season is waning and once again, beneath the pressure of fleeting years, I have not cast enough to the bounty of the waters. In some respects I may have become too attached, too focused on the problems that streams, rivers and lakes in the Commonwealth face. I have been to the meetings where concerned faces filled the room, another trout stream threatened, another fisheries facing the possibility of decimation. Becoming too close to the subject and caring about the future of the resource does not come without a price tag.

I have talked to others who were first led to the waters by the lore of fishing. They had read the stories—those how, where and when articles, complete with photos that leave you captivated. The articles create a burning desire within that our fishing would lead to large fish in great numbers and that everything out there is good. After a time they sensed that something was amiss, that even the best-looking waters often have deep-seated problems.

Many of these anglers are now leading the crusade to clean up our waterways. Many are weary, battle-worn soldiers who attend far more meetings than fishing waters. Some spend every waking hour looking for resolutions to the problems that exist. Battles won are not enough, for one battle leads to another and then an-



other. Yes, we should be thankful for such people, for their concern and hard labor has brought cleaner waters for everyone.

But carrying the load too far and too long takes away from the enjoyment of the sport, the reason we first came to the waters. And as lack of concern for the environment is wrong, over-concern may be just as damaging to ourselves as individuals. We must savor the small victories, for we all realize that many battles must be won before we triumph over the war. The cumulative effect of battles won adds up to thousands of miles of cleaner water for everyone. Still, we must be patient and realistic in what we can achieve.

A trout rises in the translucent waters before me. A trout of good size that had taken a caddis caught in the current encircling the gray boulder. I rise from beneath the evergreen and pitch my grizzly caddis above the protruding boulder. The fine hackles cock on the water and the current catches it to bounce it to the trout's feeding station. The rise is a sipping rise and I raise the rod. The line draws taut, and the glass becomes half full.

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Innovative Conservation



Edward R. Miller, P.E.

*Executive Director
Pennsylvania Fish & Boat Commission*

Five years ago, after I had served my first few months as Commission executive director, I knew that the Commission needed to strengthen its ability to acquire important natural resources and offer more aquatic habitat improvement services. At that time, habitat improvement guidance was provided by Bureau of Fisheries personnel, and the Adopt-a-Stream program was directed by the Bureau of Education and Information. Acquisition efforts were conducted by the Bureau of Administrative Services, and our property surveyors were assigned to the Bureau of Engineering. It was obvious that these programs needed to be placed under central direction if these efforts were to expand and be carried out in the most cost-effective manner.

On August 8, 1987, the Commission approved a reorganization plan that changed the title of the Bureau of Engineering to Bureau of Property and Facilities Management, and created the Division of Property Services, which was given the responsibility for all four programs—habitat improvement, Adopt-a-Stream, acquisition and property surveying.

The next challenge faced by the Commission was to find well-qualified, dedicated people to fill the leadership roles. Jim Young, a professional engineer in our Engineering Design Section, was selected to be bureau director, and to direct the Division of Property Services, we recruited Gene Banker, a professional engineer, licensed real estate salesperson and former Commission employee.

Under Jim and Gene's leadership, the Commission has been able to expand its habitat improvement and Adopt-a-Stream programs to handle approximately 100 active projects each year, and hundreds of sponsoring groups have adopted many miles of streams and a number of lakes.

Jim and Gene were also charged with beginning an aggressive land acquisition program, with the assurance that we would relentlessly seek required funds through partnerships or other innovative means to finance the acquisitions.

Today, the results of these changes in our acquisition efforts are also becoming apparent. The Commission has either acquired or has signed sales agreements for the following important properties:

- Boiling Springs and Childrens Lake in Cumberland County, the largest spring in Pennsylvania.
- Elk Creek Marina and Access Area in Erie County, a 57-acre tract of land located on the shore of Lake Erie, which is scheduled for future development.
- A 1.5-mile section of Penns Creek in Centre County, near the Village of Coburn.
- Additional acreage adjacent to Fords Lake, Lackawanna County, a 70-acre Commission-owned fishing lake, scheduled to be reconstructed in the future.
- A section of Delaware River shoreline in Bucks County, near Riegelsville, with nearly a mile of shoreline fishing and future boating access in prime fishing waters.
- Spring Creek, in Centre County, a 130-acre tract of land containing about 10,000 feet of outstanding brown trout stream and unique flora and fauna habitat adjacent to the famed Fishermans Paradise.
- Ingham Springs and Lake, Bucks County, the largest limestone spring in eastern Pennsylvania and a 15-acre lake adjacent to other Commission-owned lands located within an hour's drive of 4.5 million Pennsylvanians and a like number of New Jersey and New York residents.
- Several key stream and lakeside access sites on a number of important fishing and boating waters.

In addition to these important steps, the Commission is near final agreement with the Falling Spring Greenway Association, the National Trout Unlimited Organization and the Conservation Fund on a partnership effort to acquire valuable sections of Falling Spring Creek in Franklin County.

An impressive list of accomplishments? You bet, and much of the credit goes to Jim, Gene and their staff members. Pennsylvania fishermen and boaters will forever benefit from these important purchases.

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Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine

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The covers

This issue's front cover, photographed by Barry and Cathy Beck, shows an angler trying his luck during a crisp, fall morning on a Columbia County trout stream. If you would like to score this fall on trout, see pages 14 and 24, and if you're a fly tier, check out the emerger pattern on page 12. This month is trophy time for smallmouth bass on many Keystone State waterways, and the articles on pages 4 and 8 show you how to do it and where to fish. Fall through the winter is also the best time for catching northern pike and muskies, so arm yourself with the details on page 16. If you're after northern pike and muskies, be sure to check the information on Angler Award catches for pike and muskies on page 7.

October's Susquehanna River Smallmouth Bass Action

by Bob Clouser



As the nose of my flat-bottomed boat slid into the dying willow grass of a Susquehanna River grass patch, I could not stop thinking that another great smallmouth bass fishing season was ending. The morning fog gave way to a comfortably warm afternoon sun, and the slight evening chill, warmed by a long-sleeve shirt, reminded me that it's October.

On the Susquehanna River, October can provide outstanding smallmouth bass fishing. This is the time more than any other when smallmouth bass are in shallower water for longer periods, except during their spawning time. When water temperatures fall into the lower 60s and middle 50s, smallmouths become very active. Smallmouth bass usually feed for much longer periods at these temperatures than at any other. This prolonged feeding urge causes prowling bass to seek food where it is most abundant. The food items that bass want are also affected by falling water temperatures. Food items such as minnows and crayfish seek out the shallow, sun-warmed areas of the river. These areas are usually rocky gravel bars, the shallow edges of willow grass beds, and riffles. Exciting angling is on when concentrations of food and smallmouth bass are in the shallows during October.

Main-stem section

The area of the Susquehanna River from the Fabridam at the town of Sunbury in Northumberland County south to the Clarks Ferry Bridge (PA Rt. 322), near the town of Duncannon, is a great area for October shallow-water action.

October offers the angler many choices and opportunities. You can try techniques for catching many smaller bass, or you can try for trophy-sized fish. Many anglers wade this section of the river, only in low water conditions.

Use caution and know the area before wading any river section. Shallow-draft boats are a must for this section of the river. Anglers making float trips on these sections can stop at the many islands and shallow grass bed areas, get out of their craft and enjoy some excellent wade fishing. If you're planning a float trip in October, be sure you

have clothing with you for warm and cold weather. The fall season can fool you with changing weather fronts that can cause a 25-degree temperature drop in less than a few hours. Along with falling air temperatures, heavy winds can capsize small boats. Planning any trip with safety in mind usually results in an enjoyable experience.

Surface action

The most preferred method for catching

shines directly in the quarry's eyes. Experienced anglers cast their lures to the shady sides of rocks or to shaded areas under overhanging tree limbs.

Another effective surface method at this time is to let the lure lie motionless on the surface while it drifts a few feet, and then move it so it causes a disturbance. This tactic can cause a bass to turn and look away from the sun and spot your lure.

Smallmouth bass are wary in low, clear water. If you stand in a boat, long-distance casting entices more strikes. Avoid making noise in your boat. Furthermore, wearing items that reflect bright flashes can send a suspicious smallmouth for cover.

When wading, walk slowly, don't kick over gravel and try not to make waves. When casting to an area holding bass, try not to cast directly to the fish or cast your line over them. Sometimes the noise of the lure hitting the water spooks fish. If this happens, let the lure lie motionless for a while before moving it. A method that I use to entice a strike on a bright, sunny day is to face the sun and cast the lure a far distance. This method puts the light from the sun on the lure and not in the eyes of the bass that are following it.

Anglers fishing lures beneath the surface prefer plugs that imitate minnows in bright, silvery colors. Fly fishermen cast streamer flies to entice minnow-chasing smallmouths. The size of lures usually depends on

whether the angler prefers to catch smaller or larger bass. Usually, October bass fishing offers the angler the best opportunity to catch that trophy-size smallmouth.

During the early weeks of October, when the water temperatures are in the middle 60s to the middle 50s, smallmouth bass actively chase food, sometimes moving a distance of 10 feet to grab a lure. Anglers fishing this section of the river should find plenty of action. Cast lures to the edges



October smallmouths is the use of surface lures. Unlike the summer months when bass action is heaviest during early morning and late evening, October can usually provide all-day topwater action.

The spin and fly fisherman using lures representing crippled minnows and unfortunate insects fluttering on the surface of the water can also entice strikes from bass. The glaring rays of the sun can cause the action to slow, especially when the sunlight

The Susquehanna River from Sunbury to Duncannon has fine stretches of bass-holding water, and in October the area offers excellent shallow-water bass action.



photo-Bob Clouser

of shallow rock bars using a steady to fast retrieve. Fly rod anglers using large streamer flies should move the fly in long, steady strips, 2 1/2 to three feet per pull.

Smallmouth bass usually follow the fly and take it when you stop the retrieve. You can detect this kind of strike the instant you start your next strip. You should feel a tightness of the line. Strikes like these are easier to detect if the angler can see the lure or fly. Most strikes or takes by smallmouths come when the lure drops to the bottom. Anglers aware of this usually improve their total catches.

Anglers fishing small tributary streams or areas with a strong current flow have a better chance of hooking up with a fish because the strike does not have to be detected and the bass usually hooks itself. Wade fishing is productive in this manner. By casting across and downstream you can work a lure or fly against the current, thus increasing your hook-ups.

Usually, when you detect a strike, the bass is already hooked. Using this method during October can produce many catches. The larger bass also use these areas at this time of the season.

This section of the river has some fine stretches of trophy-size bass-holding water. Because this section of river is basically shallow with areas of unproductive water, an angler should become familiar with an area before fishing it. There are areas where the larger bass provide all-day action in October. Being consistent in catching smallmouth bass usually does not require exact imitation of baitfish. Learning the habits and movements of the prey when fleeing from a predator, and putting them

to use, put more and larger October smallmouth bass on your hook.

Feeding habits

The feeding habits of the bass change quickly as the temperature of the water falls to the lower 50s and into the 40s. This temperature drop causes the bass to move to deeper water with large, broken rock rubble and a moderate current flow. As the metabolism of the bass slows because of the falling water temperature, so does its method of feeding. The bass need to store energy so they can survive in near-dormant condition during the winter months.

Large bass, especially females, feed throughout the winter, even if the temperature of the water is almost freezing. One of the reasons for this cold-water feeding is to ensure that they store enough energy for the growth of the egg masses they carry until the following spring.

Methods the angler should use during this low-temperature period are quite different from the ones used when the bass are chasing prey. Sizes of lures can vary, but smaller sizes usually tempt large bass. Presentation of the lure should be a slow, bottom-bouncing retrieve.

Minnows and crayfish also migrate to these same areas. The use of lures should represent the general size and shape of the food available to the bass. Two of the most effective methods during these conditions are a jig or live minnows.

Fly rod anglers need heavy, weighted flies and sink-tip lines or sinking leaders to achieve a bottom-bouncing presentation.

Smallmouth bass taking a lure off the bottom can easily go undetected. A rod with

a sensitive tip is helpful, or watching your line where it enters the water for the slightest tap or movement can increase your number of hookups.

If you are releasing large October bass, the chances of not hooking a bass deeply are much greater with a lure. In some cases, smallmouth bass of any size swallow live bait or a lure. Just because you release all you catch, using any method, does not ensure that they all survive, so handle them carefully.

October on the Susquehanna River, and throughout Pennsylvania, could be the finest month of the smallmouth bass fishing season. Get in on the action now!

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Accesses

1. Shamokin: At 8th Street off US Routes 11/15.
2. Hoover Island Access: 3 1/2 miles south of Selinsgrove on US Routes 11/15.
3. McKee Half Falls Access: Off US Routes 11/15, south of McKee Half Falls.
4. Swaggart Island Access: Three miles north of Liverpool off US Routes 11/15.
5. Millersburg Access: Route 147 at the west end of Moore Street.
6. Montgomery Ferry Access: Village of Montgomery's Ferry, off US Routes 11/15.
7. Halifax Access: Route 147 south of Halifax.
8. Clemson Island Access: About 1.3 miles north of New Buffalo. Recommended for cartop boats only.
9. Liverpool Access: On US Routes 11/15 in Liverpool. Undeveloped.

Pennsylvania's Biggest Northern Pike and Muskies:

When, Where and How Anglers Catch Them

by Bill Porter

The two largest members of the pike family, the muskellunge and the northern pike, have produced their share of big-fish awards. For 1991, the Commission issued 20 muskellunge Anglers Awards and 15 northern pike awards.

To qualify for a Senior Award, a musky must be at least 28 pounds with 20 pounds for the Junior Award. Northern pike start at 11 pounds for Seniors and eight pounds for Juniors.

When

Covering muskellunge first, the calendar was filled with the fall months showing the greatest activity, even though this idea isn't revealed in the months during which the top 10 fish were caught. A look at the top 10 fish in calendar order shows this pattern: February (1), May (2), June (2), July (1), August (3) and October (1).

The first 10 trophy northern pikes showed a late-summer to winter pattern, although the remaining entries added some other months. For the first 10: January (3), June (1), July (4), October (1) and November (1).



Where

Anglers caught the 20 citation muskellunge from 11 waterways in 12 counties. Several counties were included in the Susquehanna and Allegheny rivers listings to produce these figures.

Columbia County's portion of the Susquehanna River produced three award-sized muskies. Musky waterways each with two award-

sized fish were: Allegheny River (Warren County), Allegheny Reservoir (McKean County), Glendale Lake and Keystone Lake. Those waterways with one award-sized fish were: East Branch Lake, Allegheny Reservoir (Warren County), Canadohta Lake, Raystown Lake, Woodcock Creek Lake, Kaerchers Creek Lake, Susquehanna River (Lancaster County), Susquehanna River (Luzerne County) and Lake Arthur.

Northern pike hotspots included the following waterways for the 15 top fish: Allegheny River (Warren County) was the top spot with four trophy northern pikes. The Susquehanna River (Wyoming County) yielded two more. The following locations were good for one each: Green Lane Reservoir, Laurel Hill Lake, Yellow Creek Lake, Ontelaunee Reservoir, Black Moshannon Lake, Lake Arthur, Lake Wilhelm, Presque Isle Bay and the Allegheny Reservoir (McKean County).

How

Most of the muskellunge fell to lures rather than natural baits. A wide variety of hardware attracted the prize fish. For example, the top 10 muskies in order of weight were caught on: Bomber, Legend, shiner, Rapala, shiner, Bagley, trout, Swim Whizz, Mepps spinner, and a Hot 'n Tot.

Natural baits had a better showing from the northern pike anglers. The top 10 pike in descending order took: shiner, Hot 'n Tot, shiner, smelt, Ugly Albert, Big O, Rebel, chub, chub, and shiner.

State record

Lewis Walker's musky is still the state record. His fish, caught in Conneaut Lake in 1924, weighed 54 pounds, three ounces.

The first place musky for 1991 was a 45-pound, two-ounce fish, caught in East Branch Lake, Elk County, on a Bomber lure. A 40-pound, four-ounce fish was second and a 39-pound, 12-ounce fish took third. The next seven places ranged from 38 pounds, six ounces to 32 pounds even.

The average weight of the top 10 muskies registered in the awards program was 36.75 pounds.

The northern pike record also remained unbroken. Gerald Enderle landed the 33-pound, eight-ounce fish in 1980 from the Allegheny Reservoir.

The 1991 first place northern pike weighed 20 pounds and hit a shiner in Green Lane Reservoir, Montgomery County. Second place went to a

19-pound pike from Youghiogheny Reservoir, Fayette County, that hit a Hot 'n Tot.

The remaining eight places ranged from 17 pounds, 10 ounces to 13 pounds, four ounces.

The average weight of the top 10 northern pikes was 16.2 pounds.





Erie Bronze, the Color of Fall

by Darl Black

photos by the author

It is a short toss with splashdown only a few feet from the boat. The bail on the spinning reel is left open. The 1/8-ounce jighead with soft-plastic trailer drops toward the bottom. You begin to count quietly to yourself...one thousand one, one thousand two, one thousand three...the jig continues to drop...twenty-one, twenty-two... Six-pound line is still spilling off the spool.

On reaching 30, you close the bail and give the rod tip a twitch. This was the approximate depth where a bass struck the jig on the previous cast. Perhaps a school is suspended at about 30 feet.

You hold the jig at that depth, twitching the rod tip. A few seconds later you open the bail and let the jig continue its journey to the bottom. Forty feet is a long way for an 1/8-ounce jig, but the surface of the big lake is calm and the bass want a slow drop of the jig today.

Before you detect the distinct *tink* of bottom rock through the graphite rod, your line begins moving slowly to the side. With slack in the line you didn't feel the pick up. But there is no mistaking the sign of a fish swimming off with your jig.

Starting with arms outstretched, you pull the rod butt tight to your chest while you snap the tip upward, almost vertical. You quickly reel some line, lower the tip, and set the hook once again. There is resistance, then nothing. Missed?

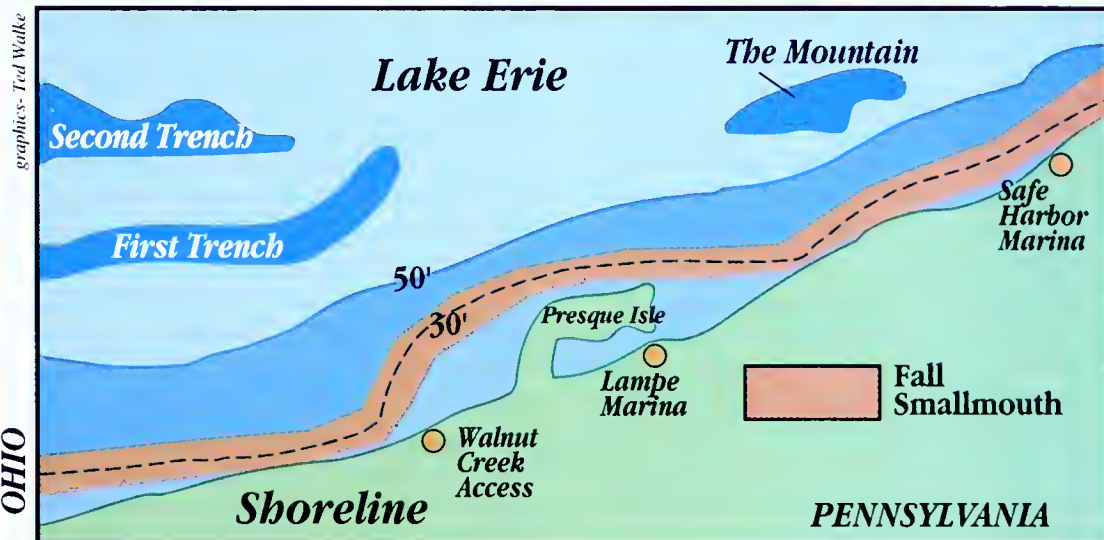
You begin reeling line but cannot feel the weight of the jig. Suddenly you realize the bass is climbing for the surface. You crank the reel handle like crazy to catch up. Straight up from almost 40 feet the smallmouth breaks the surface and goes airborne in a head-shaking somersault. Five pounds, maybe bigger. You'll never know for sure. The jig flies into the air as the bass hits the water.

You don't waste time feeling sorry about losing a big smallmouth. There are more fish below. Just get a jig back down to them.

Borrowed motto—be prepared

It is early November on Lake Erie. The colorful foliage has faded, but the true color of this fall day is bronze—the hue of deepwater Erie smallmouth bass. If you have never caught a smallie over four pounds or if you simply love to catch and release smallmouth bass, then Erie in the fall is a must-do experience. The eastern basin of Lake Erie may well be the finest smallmouth bass fishing in the world. You have only to sample the fishing to form an opinion. But be warned—it's not like fishing for creek smallmouth. Don't expect to be casting spinners, tiny minnow baits and wee crayfish plugs.

Charlie Spence shows the current Pennsylvania state record smallmouth bass—a 7-pound, 10-ounce beauty caught in Lake Erie.



Beware of the Bends

Anglers should be alerted to problems associated with bringing bass up from deep water. Bass brought up from over 30 feet down experience problems with their swim bladders. If not returned immediately to the water, an expansion of the bladder prevents their maintaining an upright position and from diving. It's not technically the same problem that humans encounter in returning from deep dives, but anglers still refer to it as "the bends."

Smallmouth bass taken from deep water that you intend to release should not be held in a livewell. Return them to the water immediately. This is the strongest argument why bass tournaments should not cull fish on Lake Erie.

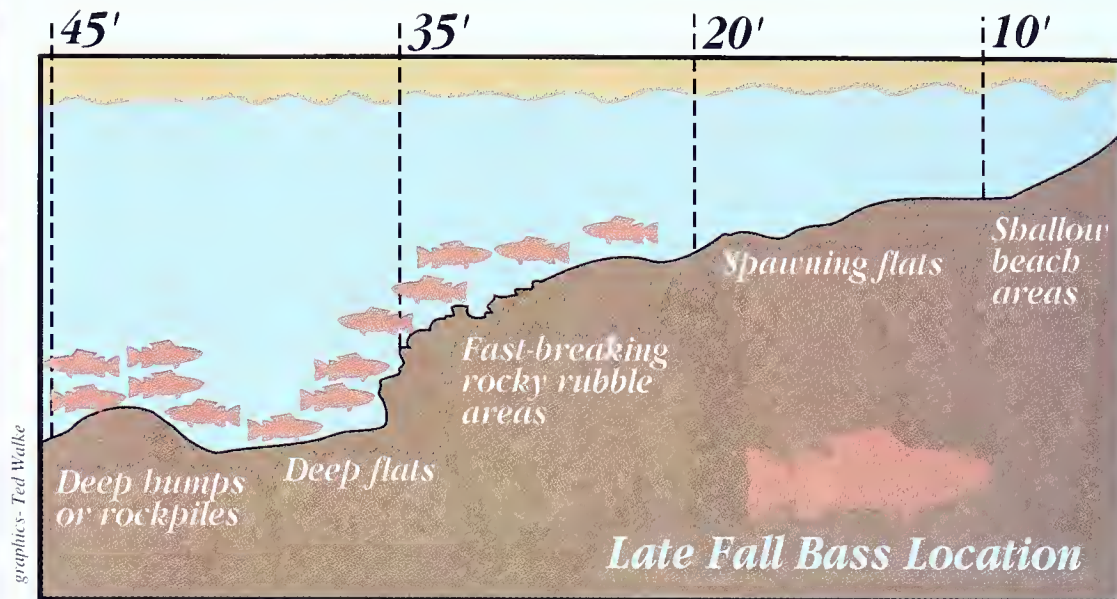
Does this immediate release harm them? Not that I can tell. For example, during a three-hour period with 150 released bass, every bass went right down. No floaters were observed. Consider this: many of those fall smallmouth intentionally swim straight up from deep water in an attempt to throw a bait. Nature would not have conditioned them to do so if they could not make it safely back down.—DB.

I'm one of the first people to give river smallmouth their due; they are explosive fighters. But comparing a river smallmouth to a Lake Erie bronzeback is like comparing a handful of plastic explosive to an atomic bomb. Now, don't get the idea you need extra-heavy-duty tackle. However, your rod and line must be adequate for the job because these fish will make spaghetti of an ultralight outfit.

You need two basic outfits. First, you need a graphite spinning rod with a fast tip action and power in the butt section, something capable of handling from 1/8-ounce to 3/8-ounce jigs on 6- to 10-pound-test line. A 6-and-6 is preferred by most—a 6-foot rod with 6-pound test. The depths you fish are from 15 to 40 feet, so a high modulus graphite rod is money well-spent when it comes to detecting pickups in deep water.

The second rod should be a notch up on the power scale. Either a spinning or casting outfit for 3/8-ounce to 3/4-ounce baits and 10- to 14-pound line. This outfit is used for casting blade baits and jigging spoons. You can get away with a lower modulus graphite or even a graphite composite for this outfit. When the bass are on a "hard-metal bite," there is no mistaking the strike.

You also need a sturdy lake boat:



smallmouths aren't caught casting from shore in the fall. Bass fishing on Erie takes place within two miles of shoreline, so you don't need a sportfisherman. Actually, in terms of maneuverability when working structure, a big deepwater boat is a handicap.

The best craft to use for Lake Erie bass is a 16- to 18-foot deep-V hull—either aluminum or fiberglass—laid out for fishing. A 25- to 75-horsepower outboard is adequate.

I am not a supporter of low-profile tournament-style bass boats for Lake Erie fishing, although I see many on the lake. Nevertheless, do not attempt to run a flat-bottomed john boat-styled hull on the lake; you will take a beating even in a moderate Erie chop.

For an electric motor to be useful, it must have an extra long shaft. Otherwise the prop spins in the air when the swells lift the bow of the boat. Because problems may arise trying to hold position with an electric maneuvering motor, every boat should be equipped with two heavy anchors with plenty of rope, and a drift sock.

Real bass anglers don't troll, but the wise Erie angler does drift. Drifting helps you locate bass—if you can move along slowly enough to fish. That is where a drift sock comes in. A drift sock is a nylon parachute-like affair that you attach to the boat by a line. The 'chute opens in the water, increasing the drag or resistance, thereby slowing the boat. Mastering a drift sock can be frustrating, but when it saves the day just once, you'll decide to learn to live with the extra line-tangling ropes off the bow or sides of the boat.

When to go, where to fish

In October when the water temperature begins to drop into the low 60s, the summer schools or groupings of smallmouth begin to gravitate toward fall haunts. In the warmwater period, the bass were spread thin—in the shallows, the deep, as well as

free-roaming suspended schools. Now mega-schools of smallmouth bass begin to form.

By late October, expect to find the majority of bass in depths from 25 to 45 feet. Some fish will be on the structure breaks, but the greatest concentrations are setting up on the deep flats. The bite remains strong until well into November.

A deep flat on Erie means the area where the broken rocky nearshore structure finally flattens out. Along the Pennsylvania shoreline, this typically happens in 35 to 40 feet of water. At this depth the bottom turns to a gradual taper that extends several miles out into the lake. The bass relate to the flats in 35 to 45 feet of water, not far from the rocky structure and large, shallow shoals.

The best sites are areas where shoal-like points protrude well out from shore. In the fall, if the bass are not on the outside edges of the shoals, look for them on the deep flats.

The boat access situation on Erie is gradually improving. To the list of protected launches at Walnut Creek, Presque Isle Bay, and Lampe, add the new Safe Harbor Marina near Northeast.

Anglers unfamiliar with the lake should never consider launching at a beach-type access. If the weather or wind changes, as it frequently does during the fall, safety is not a matter of simply getting back to the shoreline. In violent weather, you will only be able to retrieve your boat from behind the security of a break wall marina.

Fortunately, excellent bass fishing is close to each access area because smallmouth are found along the entire 42 miles of Pennsylvania shoreline.

Hot fall techniques

My wife calls it "elevator" fishing. Cast out and count it down—like descending the floors of a skyscraper. Stop the lure, shake it, pick up a passenger, and winch it back to the penthouse. Call me old fashioned,

but it's plain vertical jigging to me. In deep water, the more straight down you fish—thereby allowing the minimal amount of line out—the higher the percentage of solid hookups you can enjoy.

Several kinds of jig-type lures can be fished straight down. Besides, jig fishing is the simplest and most effective presentation for Erie smallmouth. Troll if you must. But once a good jig fisherman has zeroed in on a concentration of bass, the plug puller will be outfished 10 to 1.

Some of the late fall lures are old standbys. The soft-plastic-bodied jig is the grandfather of Erie smallmouth bass offerings. However, the traditional 3-inch curl-tail body has been replaced with big 5-inch super-soft floppy tail grubs. The wide, thin tails are activated by the slightest movement.

The most popular plastic body among Erie bass anglers is the multi-tentacle tube body. Most anglers probably know it as the Gitzit. Do not plan to fish Erie without tube jig bodies. As far as jighead sizes, the 1/4-ounce head is probably used most often. It is for “average” conditions. But when the lake is calm and the fish are not aggressively chasing baitfish, a jig as light as 1/8-ounce can play an important role in triggering bass with its slow drop.

Do not forget some 3/8-ounce and 1/2-ounce heads. In a good chop when the smallmouth are smacking hard metal, the sly angler who drags a heavy-head tube smack on the bottom can usually take the largest bass of the day.

What is this hard metal? The term refers to blade baits and jigging spoons. Blades are a category of baits that had their origin with the Heddon Sonar. Blades of 3/8-, 1/2- and 3/4-ounce are used most frequently on Erie. Jigging spoons are heavy slabs of metal weighing between a half-ounce to one ounce. These are far different from the almost weightless flutter spoons used for walleye and salmon trolling on the big lake.

Blade and spoon lures require heavier line and more powerful rods than regular jigs. Putting them straight down on the bottom and snapping or sweeping the rod tip upward several inches is one way to fish these lures. They can also be cast and retrieved near the bottom with short hops—similar to the traditional way of fishing a jig.

Either way, their flash and erratic action imitate injured baitfish. When the smallmouth are actively feeding on schooled bait, there is no lure that can put fish in the boat quicker than hard metal.

One new lure presentation has been producing outstanding Erie smallmouth bass catches for me. I'm not sure it should be

labeled “new” because I'm willing to bet some old-timers have been doing something similar to it long before my days on the lake. The technique is called shaking or doodling. It was popularized on California's deep, clear lakes several years ago and has been modified as it crept east.

The proper rigging is important. First, slide a 3/16-ounce cone-shaped sinker made of brass, not lead, onto the line. Brass slip sinkers have only recently arrived on the market, so they might be difficult to find.

Then add an 8mm sliding glass bead. These beads are available in most bait shops or tackle craft catalogs. Next, tie a fine-wire plastic worm hook (size 1/0 or 2/0) onto the line. The final item may be any soft-plastic lure about four inches long. I prefer a worm or a little bait called a Super Doo, but I don't think it matters what you use.

The rig can be fished on the bottom or at any depth you suspect bass may be suspended. For suspended fish, simply count down on the drop and close the bail when the lure reaches the desired depth.

The actual technique is very simple—shake the rod tip while keeping the bait in place. Nothing fancy. Just shake it with a three-second pause every five or six seconds. The glass bead and brass slip sinker generate a very distinct clicking sound, far different from a lead weight. Some anglers claim smallmouth bass hit it because the sound is similar to the clicking sound of crayfish. No doubt the sound is a significant reason bass strike it when they have refused to take regular jigs, but I haven't seen very many crayfish suspended 10 or 20 feet off the bottom. So you can make up your own story about why bass hit the clicker.

Everyone wants to know about the color of lures, but color is secondary to locating fish. You can use the top color on the lake; but if you are not over bass, that “hot” color is not going to catch fish.

Still, color can make a difference. Spoons and blades should have flash, so go with polished metal or glitter finishes rather than painted finishes. Soft-plastic bodies come in dozens of hues. Some anglers suggest going with baitfish colors when swimming a jig at mid-depth and dark crayfish colors when bottom-bouncing.

I don't necessarily follow that philosophy. On bright, sunny days, I recommend starting with a smoke or clear/silver flake body. For overcast days or low light of morning and evening, go with chartreuse. Blues, browns and muted natural colors have their day, too. However, if I were to pick

What's a “Good Day” on Erie?

That question is frequently asked, and when truthfully answered, the inquirer often gives a look of “Oh sure, like I'm going to believe you.” Before laying down some numbers, remember that it is not possible to fish Erie every day. Wind and waves usually kill two out of every three trips planned, especially in the fall.

Concerning the size of the fish, if I don't catch several bass in the three-pound range, I consider the outing poor. In the fall I have seen smallmouth tip the scales at almost seven pounds. The average smallmouth runs about two pounds.

Numbers of fish vary, from as few as 20 to occasionally as many as 100, depending on the weather and your ability to locate and catch bass.

The first day of November last year, Lee Duer, my wife, Marilyn, and I spent an overcast, breezy, rainy day on the lake exploring some new areas. After three hours we had caught and released fewer than a dozen bass. Then we hit the bonanza.

Drifting a deep flat, we all had hits at once. I threw a marker and then dropped an anchor upwind. For the next three hours, not 60 seconds went by when one of us did not have a hit. We didn't boat every fish, but we easily boated and immediately released over 150 smallmouth bass from that anchored position.

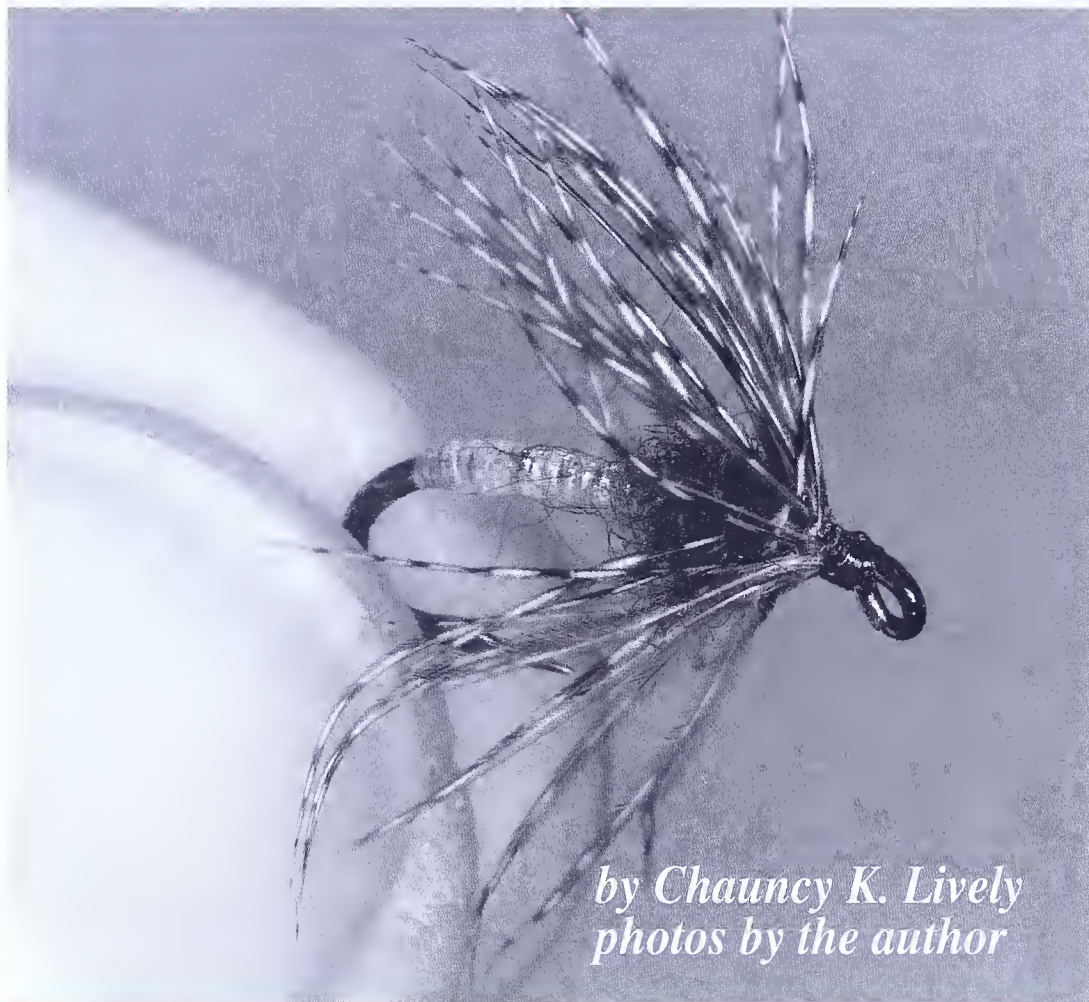
Another boat of three anglers fishing with us did the exact same thing anchored only 30 yards away. That averaged out to 100 bass per hour from one school. That is what I mean by a “smallmouth mega-school”—DB.

only one color for all conditions, it would be green with black flake.

Remember to respect the lake, and don't take chances. And please consider keeping only a smallmouth that is a personal trophy you desire to have mounted. It may seem as if the 640,000-acre lake should furnish an endless supply of smallmouth, but the fishery is actually limited to the narrow band of shoreline water. As more anglers take advantage of new access sites, a heavy harvest could reduce the world's best smallmouth lake to a second-class fishery if catch-and-release fishing is not practiced.



A Soft-Hackled Emerger

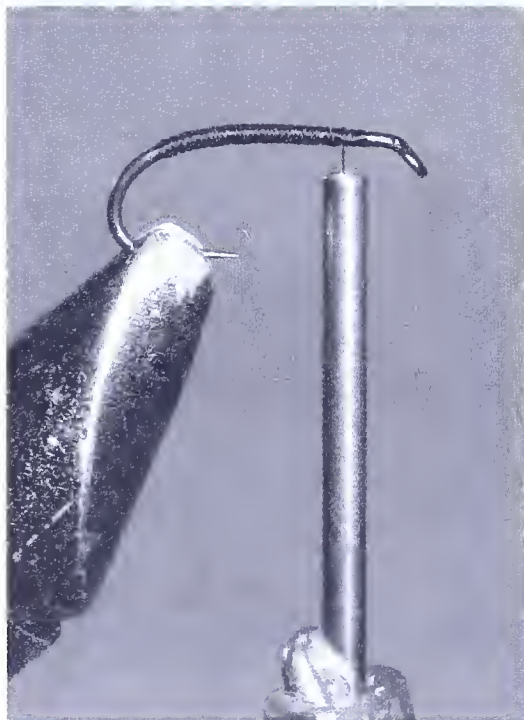


*by Chauncy K. Lively
photos by the author*

The virtues of wet flies with hackles that breathe, undulate, dance and generally act alive in the water have been recognized by serious anglers for many years. In 1857, Scottish angler W. C. Stewart published his book *The Practical Angler*. It contained some forward-looking ideas that had never before been addressed. For example, he suggested fishing flies upstream, particularly in water of exceptional clarity, reasoning that the angler's position behind the trout would render him unseen and improve one's chances for success. Stewart's idea caught on among chalk stream anglers. In fact, casting upstream eventually became the rule in several angling clubs on the Test and Itchen rivers.

Stewart's spiders are perhaps his greatest claim to fame. These creations were wet flies of the utmost simplicity, consisting only of a body and a hackle of soft texture. They were lightly dressed with short, slender bodies. The bodies were generally made of silk floss and the hackles came from birds such as starling, landrail and dotteral. Stewart also used hen hackle in his winged flies, and eventually anglers used his design with mottled feathers from partridge, grouse, pheasant and other birds of European origin.

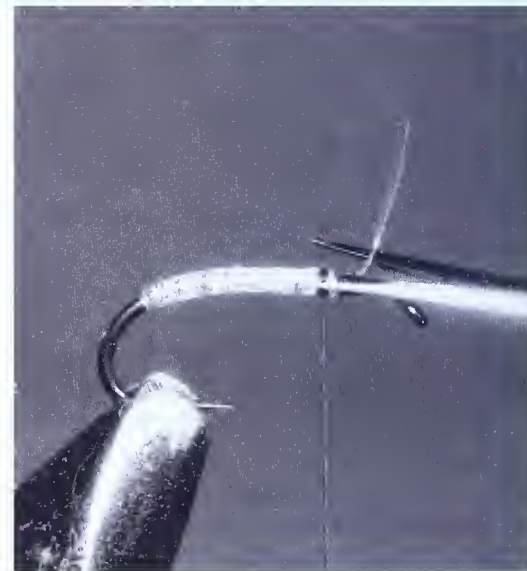
The common attribute among all these hackles is the absence of stiffness. Stiffness is a quality desirable in dry flies be-



1 Tie in the thread about 1/8-inch behind the eye and wrap it in close turns to the rear of the shank. Continue just beyond the beginning of the bend. Then reverse the direction and wind to the initial tie-in.



2 Lay the tip of the Flashablon strand over the eye and tie it in with three turns. Let the thread hang and wrap the strand in close (but not overlapping) turns to the end of the thread wrapping at the bend.



3 Keep a light tension on the Flashablon, wrap it forward over the first layer and tie it off behind the eye. Trim the excess as shown. Lacquer the body.

cause it enhances flotation, but it is a detriment in wet flies. The animation of soft-textured hackle fibers in moving water is regarded as the key to their success. And the illusion of life is further strengthened by the speckled barbules of mottled feathers, which provide the impression of fluttering movement.

Stewart's spiders were greatly admired and used extensively by James Leisenring, a toolmaker from Allentown who gained an enviable reputation as a wet fly angler on the Brodhead in eastern Pennsylvania. Known as "Big Jim" by his friends, Leisenring studied the stream's insect life and fashioned patterns representing its subaquatic forms. His book *The Art of Tying the Wet Fly* is a prized part of many angling libraries.

Leisenring must be considered a rugged individualist because his concentration on wet flies spanned the first half of the twentieth century—a time when the magic of the dry fly was sweeping the angling world.

I first became interested in little spider-type wet flies in the 1950s when I fished with Paul Young in both Pennsylvania and Michigan. Mr. Young was the finest dry fly fisherman I've ever witnessed, but during the times when few insects were in evidence and the trout were not showing, he often fished his favorite Partridge Spider. Sometimes he would use a two-fly rig with a hard

black ant on a short dripper. However, the trout would invariably take the spider on the point. He never used weight with these flies. Instead, he fished them just below the film where the rise could often be observed as readily as in fishing the dry fly.

Paul Young listed Partridge Spiders in his catalogs for a number of years and many anglers became their staunch advocates. In recent years Sylvester Nemes has carried their banner and has authored two books about the "soft-hackled flies," a term that aptly identifies these flies.

Most advocates of soft-hackled flies believe their effectiveness derives from their resemblance to aquatic larvae in the act of emerging. The phenomenon of emergence—whether by mayfly nymphs or caddis pupae—is rarely a straightforward, cut-and-dried process. Pulling free of the larval skin is a difficult struggle that often fails. Indeed, in the various species that begin to emerge well below the surface, their vulnerability to feeding fish is extreme. Even those that emerge at the surface require a few seconds to complete the procedure—ample time for interception by hungry trout.

In flowing water, the hackle fibers of the soft-hackled flies lie back along the shank, creating an elliptical, tear-shaped form, not unlike the shape of a nymph or pupa. In the Soft-Hackled Emerger, I use a single strand of pearl Flashabou, double-wound

in the manner of tinsel, to serve as a body. This provides an element of sparkle seen intermittently through the constantly undulating hackle fibers, in keeping with the luster caused by gas under the nymphal skin during actual emergence.

When winding the Flashabou, note that individual strands are actually different subtle shades, such as silver, gold, iridescent blue-green, and other hues. However, the color doesn't appear to matter because all shades provide the desired glitter. The narrow thorax is merely a thickening of the forebody with fur dubbing, but it helps form the overall shape of the swimming fly.

My favorite hook for this pattern is a Mustad 9306, a sproat bend. However, almost any regular-weight, regular-shank hook will do. Pinching down the barb not only improves penetration, but it also makes releasing your catch a lot easier, with minimal damage to the fish.



Dressing: Soft-Hackled Emerger

Hook: Size 10 to 18, regular shank and weight.

Thread: Black 6/0 prewaxed.

Abdomen: One strand, pearl Flashabou.

Thorax: Dark-brown natural or synthetic fur dubbing.

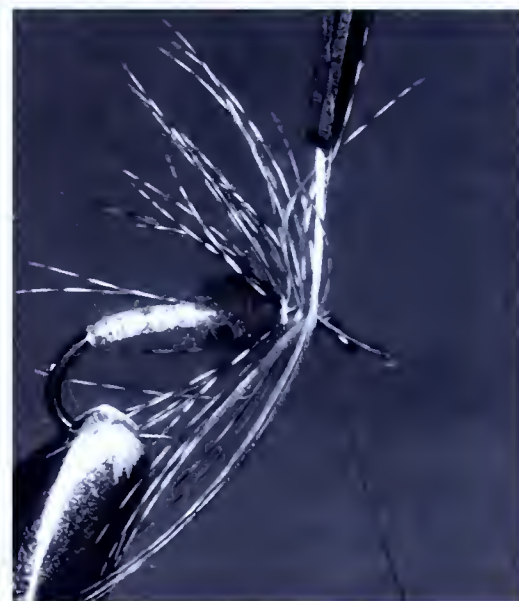
Hackle: Grouse or partridge.



4 Wax two inches of the thread next to the hook and pinch-dub the dark-brown fur or synthetic.



5 Wrap the dubbing to form a narrow thorax or collar. Then select a hackle with barbules slightly longer than the overall length of the hook. Gently hold the hackle by its tip and stroke it downward along the stem to cause the barbules to stand out at right angles. Then tie in the hackle by its tip ahead of the thorax.



6 Clamp your hackle pliers to the hackle stem and wind closely for two turns. Tie off and trim the excess. Whip finish the thread behind the eye and apply lacquer.

LITTLE BLUE WINGS

BY CHARLES R. MECK

Andrew Leitzinger of Collegeville and I arrived at one of central Pennsylvania's prime trout waters, the Little Juniata River, early in the morning on a late October day. The fields bordering the river still held a heavy frost as a reminder of the cold night before and a harbinger of winter. This was Andrew's first trip to this fertile limestone river and I wanted him to experience the true character of this tremendous resource. I wanted him to see some of the great hatches and heavy brown trout this river holds.

But realistically, could we expect to see a hatch appearing on the water this late in the season? Hadn't all the hatches ended until next March? And of course, without a hatch would we see any rising trout this late in the season?

In October or November, if insects appear, they do so most often at the most comfortable time of day—usually 1:00 to 4:00 p.m. So for most of the morning we used wet flies and streamers, hoping that midges, stoneflies, caddises, crane flies or mayflies might appear in the afternoon. We picked up a half-dozen healthy brown trout, and we decided to head upriver around noon.

Upriver at our new location, around 1 p.m., a few small, dark-gray mayflies appeared on the surface. I captured one, examined it carefully, and decided that it was one of those tiny mayflies anglers call the Little Blue-Winged Olive dun (scientists call it *Baetis tricaudatus*). It didn't take the trout long to notice this fall bonus, and several browns took up feeding positions in front of us.

Both of us tied on size 20 Little Blue-Winged Olive dun imitations with dark-brown Z-lon shucks. I add these shucks, extending back over the tail, to copy the mayfly leaving the nymph. Before the hatch ended around 3 p.m., Andrew and I picked up more than a dozen trout, matching that late-season hatch.

Just as the little blue-wings diminished in numbers, a second larger mayfly, the Slate Drake, appeared on the surface. Both of us switched to a size 14 Slate Drake and caught a few trout on that pattern before the hatch waned and the late-afternoon sun fell behind the high mountain to the west. Within minutes the air temperature dropped 10 degrees and all hatching activity ended on this late October day.

SPECIFIC STREAMS

Many Commonwealth waters hold Little Blue-Winged Olives and Slate Drakes in September, October and November. November hatches are more predictable on Pennsylvania's southern limestone streams like Falling Spring near Chambersburg, Yellow Breeches near Boiling Springs, the Little Lehigh in Allentown, and the Tulpehocken near Reading. The Little Lehigh holds an unbelievable number of the *Baetis* species that make up the little blue-wings. Some of the best hatches I've ever experienced in

central Pennsylvania appear in October and during warm, early November afternoons on the narrows section of Big Fishing Creek and Penns Creek.

Am I the only angler who enjoys this last hatch of the year? Recently many other Keystone State anglers have noticed the productivity of the Little Blue-Winged Olive hatch in the fall. Jim Hawthorne, Al Bright and Tucker Morris, all from Spruce Creek, look forward to the Indian summer days of October. All three look forward to those fall afternoons when a small but productive mayfly, the Little Blue-Winged Olive dun, appears. All know that the hatch appears in early afternoon. All three have hit the hatch from late September through much of the month of October. I've even experienced Indian summer days in early November when I've hit Tricos, Slate Drakes and Little Blue-Winged Olives.

Ed Gunnett and Danny Deters of Williamsburg, near Altoona, also fish the Little Blue-Winged Olive dun often in the fall. You find them frequently on Clover Creek in late October when you fish over trout rising to this mayfly.

There's no need to arrive at the stream early. You won't see this last hatch of the season until early afternoon. Just to make certain you arrive in time for the hatch, plan to be on the stream by noon. The hatch usually begins around 1 p.m. and continues until 3 p.m. Fish a size 18 or 20 Hare's Ear or Pheasant Tail Nymph at the heads of pools and in riffles. Try fishing the nymph in the surface film.

If you prefer using dry flies as I do, then tie on a size 14 dry fly like a Royal Coachman or my own attractor pattern, the Patriot. Add a 30-inch piece of tippet at the bend of the hook of the dry fly and secure it with an improved clinch knot. At the end of that tippet add a Hare's Ear Nymph. Weight the nymph with several wraps of light lead wire so the pattern sinks just below the surface.

One late October on the Penn State University section of Spruce Creek, I saw thousands of Little Blue-Winged Olives appear. Trout in the riffle at the head of the pool fed for two hours on emergers. That day I began and ended the matching-the-hatch episode with a Hare's Ear tied to the end of an attractor pattern. I even caught two trout on the attractor dry fly that acted as my strike indicator. Never once did I have to switch to a dry fly to match the dun resting on the surface.

"BAD" DAYS

What happens when the day you've planned to fish the hatch turns out to be one of those raw, cold fall days not fit for an angler to brave? If you've experienced several days of relatively

MANY COMMONWEALTH WATERWAYS HOLD LITTLE BLUE-WINGED OLIVES AND SLATE DRAKES IN SEPTEMBER, OCTOBER AND NOVEMBER. SOME OF THE BEST HATCHES I'VE EVER EXPERIENCED IN CENTRAL PENNSYLVANIA APPEAR IN OCTOBER AND DURING WARM, EARLY NOVEMBER AFTERNOONS.



MATCH THE STREAM'S SLATE DRAKES WITH A SIZE 12 OR 14 PATTERN. BE READY TO SWITCH QUICKLY FROM A LITTLE BLUE-WINGED OLIVE DUN TO A SLATE DRAKE.

warm weather and the stream temperature has risen to the low to mid-50s before the cold day, get out and enjoy the hatch.

Often on these lousy inclement days mayflies appear on the surface, but they can't escape because of the cold weather. On these cold, overcast days I've seen duns cover the surface. I've experienced several fall trips when Little Blue-Winged Olive duns have covered the surface and trout fed freely for several hours.

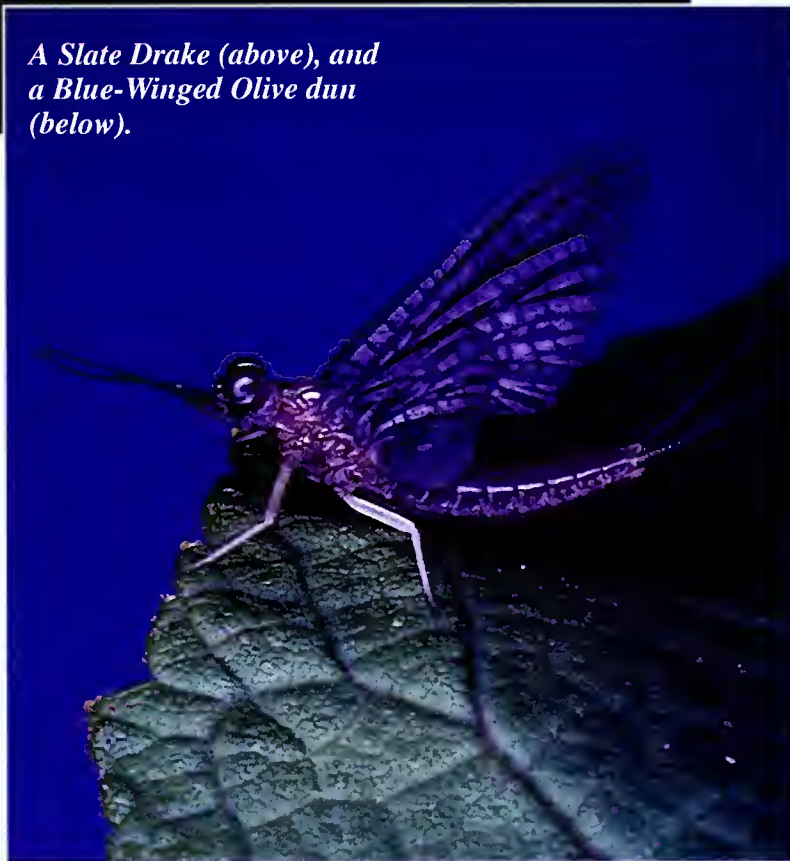
Tie the pattern on a size 20 hook to match the dun. If you look closely at the Little Blue-Winged Olive dun, you see that the body has an olive-gray color. I usually use olive-gray polypropylene or muskrat soaked in an olive dye for a few minutes. I said earlier that I use dark-brown Z-lon or antron to simulate an attached nymphal shuck to the dun. Extend the shuck over the tail and make it as long as the shank of the hook.

On those fall days also carry other patterns with you. You'll often see some Slate Drakes and Little Blue Duns also appearing. Match these Slate Drakes with a size 12 or 14 pattern. Be prepared to switch quickly from the Little Blue-Winged Olive dun to the Slate Drake. When the two appear together, trout switch quickly from one to the other.

Another late-season hatch you'll experience on many Keystone State streams is the Little Blue Dun. This mayfly appears three times a year usually in May, July and again in September, October and early November. Valley Creek in Valley Forge National Park has a good hatch of this species. Carry size 22 patterns to copy this small but extremely important mayfly.

The Little Blue-Winged Olive dun has two generations per year. You find the first hatch emerging from late February until late April, depending on the stream conditions and temperatures. In spring the dun also appears on the surface late in the morning or early in the afternoon. The second generation of olives begins appearing in September. Fall hatches can continue into November, especially in southcentral and southeastern streams and riv-

A Slate Drake (above), and a Blue-Winged Olive dun (below).



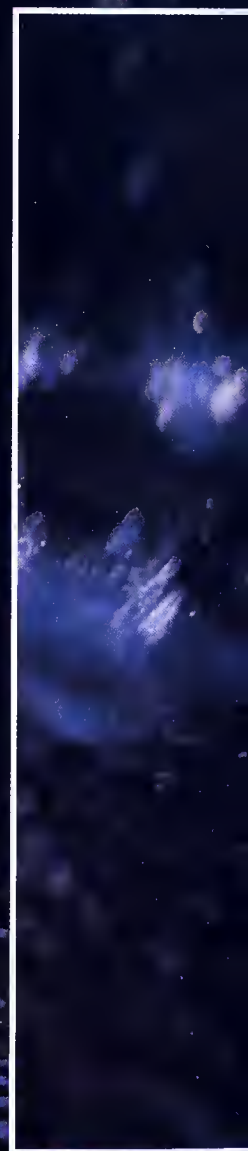
ers. Trout seem to sense that this is one of the last hatches of the season on which they can feed, and they often gorge themselves on this small mayfly.

Where will you be this November? Will you have quit fly fishing until next year because the hatches have ended? Why not extend your fly fishing season by a few weeks by trying one of the many southern Pennsylvania trout streams that harbor a good number of Little Blue-Winged Olive duns? You might find these late fall hatches to be the most rewarding of the entire fly fishing season and a very fitting way to end the year. You often find few anglers to compete with and trout eager to rise to almost any hatch.



MUSKY and PIKE HEARTLAND

by Mike Bleech



Some scenes become etched in the mind, like my first encounter with a member of the pike family. Ray, the fishing mentor of my youth, had just moved to the bank of the Allegheny River near what would later become the Buckaloons Campground. I was 11 years old. My teeth had been cut on brook trout, my appetite whetted on smallmouth bass, and my soul fired by Ray's tales of the great northern pike he caught while moose hunting in Canada. Ray heard from a neighbor that fishermen caught northern pike at Hertzel's Hole, just a hundred feet downriver from the house.

Armed with a solid fiberglass rod, a Sears open-face spinning reel, the first open-face spinning reel I had ever seen, a half spool of monofilament line, and a Hula Popper, I followed a worn path down over the bank to Hertzel's Hole. Hertzel's Hole is a turn in the river bank that creates a calm eddy. Several large boulders at the upriver side of the hole slow the current further.

I began casting the yellow skirted popper with the confident determination of youth. An hour passed. Then another, and another. I cast until my arms could no longer swing the rod. Then I rested until I could

cast again. The morning grew late, the sun high and bright.

All of a sudden the most glorious fish I had ever seen rocketed out of the water in a graceful, arcing leap that must have been three feet high and four feet across. Time generously stood still. The shiny, white-spotted green fish seemed to pose just for me. Then it hit the water with mouth agape right on top of my plug and startled me out of a trance. The battle was on.

I had never wanted anything more. It ran and jumped, and I was scared that at any moment the line would part. But everything held, and in a few minutes I dragged the thrashing pike up and over the shoreline rocks, and then pounced on it like a cat on a mouse.

I have been a pike fishermen ever since.

Imagine my surprise a few summers later when I discovered muskies in the same water! It was another day I will never forget. I had pulled my wooden boat onto a large boulder in the middle of the river, to cast a Pikie Minnow for pike.

The first one I saw smacked the side of my boat so hard I almost fainted. Two casts later another musky followed the plug from

another direction. This one came right out of the water onto the boulder. It twisted back into the water, drenching me with a flip of its powerful tail.

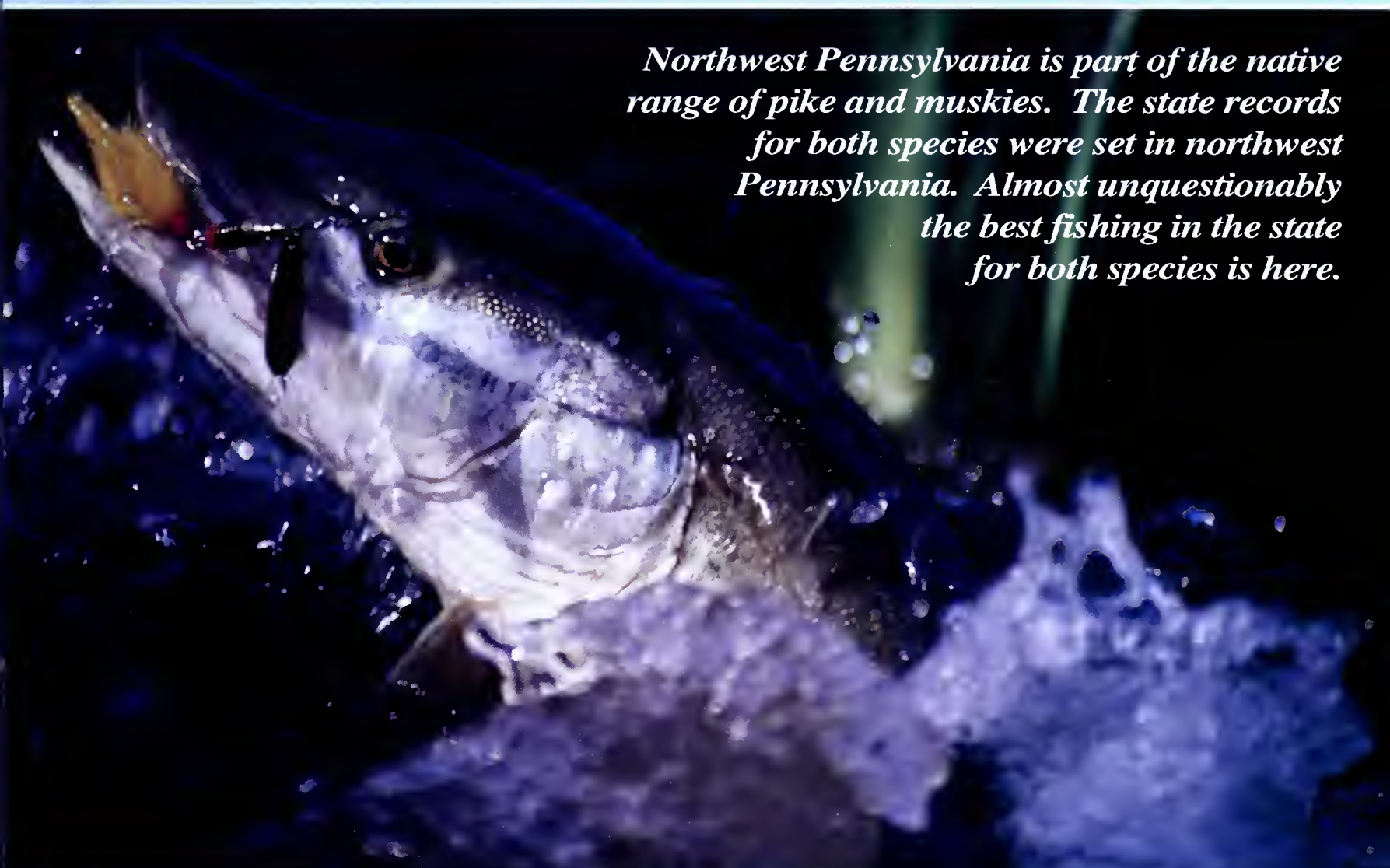
That incident inspired me to go lengths some folks might consider extreme in pursuit of muskies during the three decades since.

Fortunately, here in northwest Pennsylvania there is a lot of good water for muskies and northern pike. This is part of the native range for these close relatives. The state records for both species were set here. Almost unquestionably the best fishing in the state for both is here. Here is a look at some of the better waters.

Allegheny River

The Allegheny River holds pike and muskies from the Kinzua Dam all the way down to the Ohio River. Most pike you'll encounter will be close to the 24-inch minimum size limit, though anglers capture a few that weigh more than 12 pounds. Muskies heavier than 40 pounds have been caught. By musky standards, 12- to 30-pounders are common.

Pike and muskies occupy pretty much the same niche in the river. They are top



Northwest Pennsylvania is part of the native range of pike and muskies. The state records for both species were set in northwest Pennsylvania. Almost unquestionably the best fishing in the state for both species is here.



The most consistent method for catching big muskies in the reservoir has been trolling with large plugs. Black scale and natural perch are good lure colors. Some of the hotspots are Sugar Bay, Willow Bay, the upper Kinzua Creek Arm and Chapel Bay.

The state record pike, 33 1/2 pounds, was caught in 1980 in the Allegheny Reservoir. If another record pike is caught, it, too, will probably be taken here. Pike heavier than 15 pounds are caught every year.

The best times for pike fishing in the reservoir are just after the season opens in May, and mid-fall to late fall. Ice fishing for pike is best through early ice, typically from Christmas to New Year, and through late ice, which is most often some-

time during March. Interestingly, there is often a brief flurry of big pike activity sometime during late August.

If you like bobber watching, fish large live minnows close to trees that have fallen into the reservoir. Trolling or casting six-inch minnow-shaped lures is effective. The better pike water is generally along the western shore, from Billy's Run Bay north, and in the Kinzua Creek Arm. A couple of the better shore fishing opportunities in this big lake are for pike in the Kiasutha-Red Bridge area and in Willow Bay.

Allegheny Reservoir

The Allegheny Reservoir has produced more 30-pound-plus muskies during the past few decades than any other water in the state, and probably more than any other water in the East. The lake record is a 48 1/2-pound brute caught in 1987 by Thomas Arne. He was fishing with a spinnerbait in the main arm.

predators. They generally shun the current. They both like to hunt from ambush, using whatever cover is available. That cover is typically boulders, logs, weed beds when the water is high, and bridge supports.

The peak time for pike in the river is late winter, just before the season closes in mid-March, and again just as the season opens in early May. Pike fishing is localized. The better places are usually somewhere near spawning areas. They ascend small tributaries to spawn in marshes in the river bottomlands.

Musky fishing might explode at any time of the year. Winter is probably the best time. While the water is cold, muskies shun current more than ever, so the potential holding water is reduced. High river flow puts the odds in your favor by reducing the area where muskies can find suitable mild current.

Because pike congregate during the peak fishing times, anglers should not move around much. A few favorite pike fishing areas on the river are in Warren, at the mouth of Conewago Creek, and the Buckaloons pool.

Muskies spread out more. Float fishing is the best way to go after river muskies. Numerous boat access areas provide a mix of trip lengths. Canoes and cartop boats are fine for this water. Larger boats scrape the bottom in the riffles between pools.



Allegheny Reservoir

Presque Isle Bay

Presque Isle Bay, Pennsylvania's only natural Lake Erie harbor, has surprisingly good musky and pike fishing, considering that it borders the third largest city in the state.

Not many muskies heavier than 25 pounds are caught here, but it would not be a big surprise to see one much larger. The food supply, fueled by Lake Erie, is excellent.

Troll or cast big musky plugs along the southern side, in the general vicinity of Dobbins Landing—the public dock. The plugs should be in natural colors, with some blue to imitate alewives, smelt, shad or shiners. Plugs that imitate trout or salmon can also be very good.

Pike fishing peaks during May, and again

during early and late ice fishing season. Not many anglers specialize in pike here, though they are plentiful.

Look for pike at the shallow western end of the bay and in the lagoons. One of the better pike lures is a large white spinnerbait.

Conneaut Lake

The state record 54-pound musky was caught in Conneaut Lake on September 30, 1924. It was 59 inches long.

Musky hounds have pounded this lake since in hopes of topping that record. Stories still persist that there are 60-pounders in the lake. Musky fishing has fallen off here in recent years, but Conneaut still rates as one of the better musky waters.

Try slow trolling with big live minnows during October and November, on a dark night when storms threaten. Keep the bait close to the outer edge of a weed line.

Conneaut also has pike. Most are harvested soon after reaching the 24-inch minimum size limit, but occasionally a 10-pounder shows up.

Pymatuning Reservoir

Pymatuning Reservoir was long considered one of the best musky fisheries in the country. But musky fishing here is far from what most folks remember. It is a productive lake, but fishing pressure is heavy. And the lake suffers from a common problem—musky management has changed for the worse, due mainly to economics.

Musky fishing at Pymatuning looks a lot better if it is not compared to its former glory.

Clear Lake

This small lake at Spartansburg is one of the better pike waters in the state. However, it is choking itself with weeds, which was hastened by the drought two summers ago. I believe if something is not done to correct the problem, fishing in the lake will be lost.

There is some shore fishing near the dam, and along the western shore. The best way to fish Clear Lake is with a small boat thrust by paddles. Paddles are easier to manipulate through the thick weeds than oars. Dip live minnows under floats into open pockets into the weeds, or cast with weedless topwater lures.

Eaton Reservoir

This little water supply reservoir in northern Erie County is restricted to electric motors only, which keeps it quiet. It is known locally as a big fish lake. It has produced a few 30-pound muskies. Pike are abundant, but not usually large.

Conewango Creek

This unheralded creek is one of the better pike fisheries in the state. Swamps along its glaciated bottomland are perfect spawning areas. Fishing is excellent during the first few weeks of the season, in May, near the ditches that drain the swamps. If winter breaks soon enough, the best fishing of the year occurs during the last week of the season in mid-March. Cartop boats can be launched near Akeley. The only other access to the swamp area is through State Game Lands 282.

The lower stretch of the Conewango, in Warren between a low-head dam and the Allegheny River, is also excellent pike water. Ask any bait and tackle shop in the area for directions to "the point." This is the place to be whenever the creek or river flow is high, particularly during late winter. Try big live minnows under floats, in a cove just up from the mouth.

Tionesta Reservoir

Tionesta Reservoir, an excellent musky lake, is tucked away in the least populous county in the state—Forest County. Just up around the bend from the town of Tionesta, it is a relaxing place, especially on weekdays, to combine musky fishing with camping or an inexpensive vacation.

Cast deep-diving crankbaits in the lower half of the lake, or troll shallower-running plugs and big spinners in the upper half. Fishing is best in the shallow upper half when the water has some color.

Pothole lakes

Several small lakes and swamps in Erie, Crawford and Mercer counties originated as huge chunks of ice left by glaciers. The larger lakes, including Conneaut Lake, are famous among musky anglers as native musky waters.

Canadohta Lake, between Corry and Meadville, gives up some very nice muskies. Peak fishing times, like its sister lakes, are early in the season, and from early October through ice-up.

Edinboro Lake, in southcentral Erie County, holds a lot of eight-pound to 15-pound muskies, and a few much bigger. The most consistent musky fishing method here is flipping weedless jigs in weed beds in the northern portion of the lake.

Sugar Lake, in southeastern Crawford County, is tiny, yet every now and then someone catches a 40-pound musky there.

French Creek

French Creek holds muskies at least from its mouth at Franklin upstream to the Union

City area. Pike inhabit all of that area and upstream into New York. If you can accept dragging over the shallows, the Buffalo River, as it was named by the French, can be floated from Cambridge Springs to the Allegheny River, perhaps even from a few miles farther upstream.

The peak time for pike is early in the season. Use live minnows under floats in the calmest pools and back-eddies.

Musky fishing can get hot anytime. Float fishing gets your lures in front of the most muskies.

Shenango Reservoir

Though it is manmade, this reservoir is as productive as many of our natural lakes. It holds both muskies and pike, including some trophy specimens of each species. Fishing and boating pressure get awfully heavy. You might like this lake best during late fall.

Try slow trolling with live minnows in areas where there is some wood cover. Early in the season try topwater lures in the electric-motors-only section of the western arm.

Other creeks

Most of the larger creeks in the area hold pockets of either pike or muskies, sometimes both. A few of the creeks where you might find muskies or pike are Cussewago Creek, Conneaut Outlet Creek, the Clarion River, Redbank Creek, Oil Creek, Brokenstraw Creek, Conneaut Creek and Tionesta Creek.



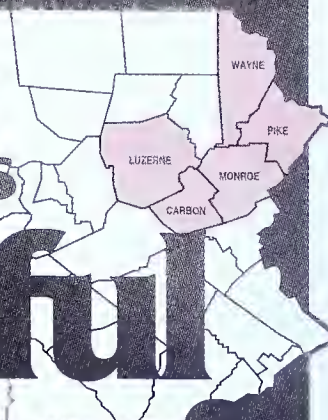
A Live-Minnow Rig for Muskies and Pike

One of the best ways to fool a musky or a pike is with its natural food—a big, live minnow. Muskies and pike have sharp teeth that can cut a monofilament fishing line, so the bait should be rigged on a cut-proof terminal rig. The leader should be at least 18 inches long. Tie an appropriate hook, usually size 2, 1 or 1/0, to one end of the leader. To the other end tie a barrel swivel. A 17-pound-test, abrasion-resistant monofilament leader is adequate for most pike. For muskies I prefer a single-strand wire leader.—MB.



Northeast Pennsylvania's Plentiful Panfish

by George Smith



The waters have cooled in northeastern Pennsylvania lakes and ponds and the panfish have fattened after a long, lazy summer. Now, as winter approaches and nature's paintbrush colors the mountainsides in shades of gold and crimson, the panfish are voracious. The fish seem to know the winter cold is coming because they throw the full weight of their slab-sided bodies into the hook and grab anglers' offerings.

Unlike the summer months when the largest perch, crappies and bluegills schooled deep to escape water that was bathtub-warm, the fish are now beginning to head for shallower water where food remains abundant. Fishing conditions return to what they were like in the spring. A bobber, a small splitshot and a few redworms, mealworms or small minnows are all that you need to fill a stringer.

Tackle

Autumn panfish can be taken with only basic gear, but anglers with sensitive slip bobbers, colorful wet flies and tiny lures also enjoy catching abundant, feisty panfish. The fishing can be easy. Tie a size 12 hook to the end of your line, add a splitshot six inches above the hook, and then attach a small bobber about a foot away from the splitshot. Use mealworms or lively garden hackle for bait and you're in business. Hungry panfish seldom refuse such an offering.

If the panfish are finicky, or are still holding in water that is deeper than five feet, use a slip float to cajole them into biting. Slip floats were first popularized in Europe by fishermen whose home waters saw heavy angler traffic. It's not surprising that they work equally well on this side of the Atlantic for spooky Pennsylvania panfish. You need light tackle. Rods should be long—the longer, the better. Six-foot rods suffice, but a seven- or eight-footer is even better. Reels should be spooled with the lightest lines. Two-pound test is best. Don't use anything heavier than four-pound-test monofilament. Hooks should be small, size 12 or 14 baitholder. Go down to size 16 or even 18 if you want to get fancy and use curved English bait hooks.

Then comes the slip float, the European version of a bobber. They are usually constructed of balsa and most are long, lean and light. Some are as long as and thinner than a pencil. A few used for larger gamefish are short and squat, and no longer than your thumb. A tiny movable bead or special knot attaches to the line to serve as a bobber stop. It determines the depth at which the bait suspends. The bobber stop can be moved up and down the line to let the bait sink to any depth where panfish lurk. The float, with the fishing line running through it, stops at the bead when the bait is cast. The bobber stop can be placed 15, 20 or even 80 feet from the terminal tackle.

photo Don Carey

The beauty of this European system is that it allows you to reel terminal tackle right up to the rod tip before casting. It also lets you drop bait to a precise depth with each cast. Remember to let the reel spool run freely when the terminal tackle hits the water after the cast so that the bait can sink to the prescribed depth.

To reduce the resistance skittish panfish feel when they tug on the line, the idea is to create neutral buoyancy. This is accomplished with tiny splitshot, the kind used by fly fishermen. Attach just enough weight to the line above the bait to sink the European float until the tip-top barely pokes above the water. This reduces the "feel" of the bobber as a fish drags it underwater.

Adding weight is probably the most difficult aspect of fishing European floats. Even the smallest splitshot used by trout fishermen is too large. Ultralight shot is necessary to sink the float to exactly the right depth. It may take a bit of experimenting to grow accustomed to this method of fishing, but the rewards are well worth the effort.

Lures

Angler casting lures and spinners for autumn panfish should use the smallest sizes. Tiny Rebels and Rapalas are productive, as are Mepps, Panther Martin and Blue Fox spinners in size 0. If you can find spinners in size 00, so much the better. Anglers using fly rods take some panfish off the surface with bushy attractors like the buoyant Royal Wulff, Rat Faced McDougal or Irresistible in sizes 12 and 14, but more fish strike subsurface offerings at this time.

A favored trout fly, the Hare's Ear Nymph, gets the job done, but wet flies are more productive. Attach a Black Gnat or March Brown wet to your tippet and get ready for action.

If the fish seem desperate for color, try a Parmachene Belle. Calf tail can be substituted for this fly's delicate, sweeping red-and-white duck quill wing if you want to tie a sturdier bug for scrappy panfish.

Productive waterways

There are plenty of productive waterways in northeastern Pennsylvania where you can pit your panfishing skills against these tasty, brawling little battlers. There is 90-acre Hunters Lake in Sullivan County. This little-known waterway can be most productive. Just ask Tony Karuzie, from Avoca. Karuzie pulled a two-pound, eight-ounce yellow perch from the lake last February 19 that established a new Pennsylvania state record. The 17-inch fish was heavier than the old state record perch taken from Pecks Pond in 1990 by two ounces. Hunters Lake also has bluegills and crappies.

Wyoming County has its share of hotspots for slab-sides. The 262-acre Lake Carey and 198-acre Lake Winola produce some fine catches of panfish each year. If you fancy smaller, shallower waters, try 60-acre Oxbow Lake, or 62-acre Stevens Pond.

Luzerne County has abundant panfishing hotspots. The inlet at 658-acre Harveys Lake can provide outstanding crappie action, and perch and bluegills can be taken throughout the lake. Harris Pond, at 30 acres, is also a good place to wet a line. This pond, located next to the Fish and Boat Commission Northeast Regional Office in Sweet Valley, is an artificial-lures-only waterway.

At 165 acres, horseshoe-shaped Frances Slocum Lake in Frances Slocum State Park holds its share of panfish. On weekends and warmer afternoons this waterway attracts crowds. Fish the deeper water with slip bobbers and tiny baits for pan-sized results.

Lily Lake near Mocanaqua also has plenty of panfish. You can

catch respectable bluegills in its 160 acres. Try fishing near the ledges, and near the thick weedbeds that form during the summer months.

The 824-acre Army Corps of Engineers Francis E. Walter Dam near White Haven does not seem to be as popular as it was several years ago among panfish anglers. That's a shame, because tremendous schools of crappies hold in the dam's deeper channels and cruise the rocky shorelines. Fish west of the point at the rear of the dam, at the exact spot where the Lehigh River and Bear Creek merge within the impoundment.

Panfish anglers who want a deep-woods outing should check out Lake Jean in Ricketts Glen State Park, high atop Red Rock Mountain. Lake Jean, at 254 acres, holds an excellent population of perch and bluegills.

For a change of pace in Luzerne County, try fishing 81-acre Sylvan Lake.

To the east, giant Lake Wallenpaupack comes to mind. The border of Pike and Wayne counties runs right through this well-known lake. At 5,700 acres, it's the largest waterway in northeastern Pennsylvania, and anglers can expect to pull just about every panfish found in the state from Wallenpaupack's sprawling waters. Crappies, bluegills and perch abound, along with healthy populations of feisty rock bass.

Try also heading out to Shohola Dam in Pike County. The 1,100-acre waterway can produce some nice bluegills and crappies. Fish the lake's shallower water. If you can locate submerged brush piles and other structure, so much the better. Avoid the restricted area where bald eagles nested last summer.

Bruce Lake and Egypt Meadows Lake near Promised Land State Park hold panfish that are worth the walk. At 48 and 60 acres respectively, both lakes are within the Bruce Lake Natural Area, and there is no motor vehicle access to these waters.

Two other Pike County lakes deserve mention, and both are within Promised Land State Park. Upper Promised Land Lake at 422 acres is the larger. It has lots of little coves where panfish lurk. The smaller of the two, at 173 acres, Lower Promised Land Lake might just be more productive when it comes to hot panfishing action. There are boat launches at both lakes.

In Monroe County, try Brady's, Goldsboro and Tobyhanna lakes. These relatively shallow impoundments seem to have been ignored of late by serious panfish anglers, but all three can offer fine fishing. To get to Brady's, near Blakeslee, you must navigate a pleasant, wooded, three-mile access road. Brady's holds about 229 acres of shallow water where panfish as well as pickerel and the occasional musky can be found.

Goldsboro Lake, near Goldsboro, is a bit larger at 250 acres. There was a time when anglers went to this lake to fill their creels with yellow perch. Now, the perch are not quite as prolific, or sizable, but they are making a strong comeback along with crappies and bluegills.

Tobyhanna Lake near the town of Tobyhanna encompasses 170 acres and holds a fine population of panfish.

There are two waterways in Carbon County that attract anglers. The 947-acre Beltzville Reservoir near Lehighton is considered a hotspot, as is the 330-acre Mauch Chunk Dam. At Beltzville, fish the rocky points for bluegills and crappies. Fish deep just off the bottom if you want to fill a stringer with outstanding crappie and hefty bluegills at windy Mauch Chunk Dam.

On good days, when the fish are active, it seems that all the waterways in northeastern Pennsylvania hold a plentiful supply of panfish. Get some lures or baits, rig a rod and go fill a stringer now that the waters have cooled and winter approaches.



DIG'EM UP

with Blades and Spoons

by Jeff Knapp

Frank Hager skillfully held the boat over the submerged bridge, a productive piece of structure that straddled the 25-foot-deep creek channel. The bridge deck itself topped out at about 12 feet. We were hopeful a change in presentation would bring a corresponding change in our success.

Hager and I could normally count on this spot to yield a walleye or two to our minnow-tipped leadhead jigs. But on this day there wasn't a touch. We both replaced our jigs with Rocker Minnows, half-ounce banana-shaped chunks of brightly painted lead. We spiced the lures' treble hooks with lively fathead minnows.

We lowered the Rocker Minnows to the base of the bridge structure. By imparting a steady lift-drop-hold action, we both were soon into the walleyes we knew were there. Two 20-inch Glendale Lake 'eyes were soon in the boat. We hooked and lost a couple more before the action stopped.

It was a typical day for the Rocker Minnow, or "R.M." as my partners and I have dubbed the lure. When the fish pass up your traditional offerings but you think you are still "on fish," a presentation such as a Rocker Minnow can trip their triggers.

Rocker Minnows (made by the Jig-A-Whopper Company) fall into a classification of lures that I call vertical spoons. Other examples include the Hopkins Spoon, Jig-A-Whopper's Hawger Spoon, Luhr Jensen's Crippled Herring and Bait Rigs' Walleye Willospoon. It's not that these lures won't produce when they're cast or trolled—they do. But they perform so admirably when fished vertically, I think of this application as their primary use.

You can score well with another closely related family of lures that fall into the "blade bait" category. Old standbys like the Heddon Sonar and the Silver Lucky, along with the relative newcomer Cicada, certainly have their place in the angler's box.

Most all gamefish species that inhabit Pennsylvania lakes and rivers can be caught using vertical spoons and blades. It could be well-fed walleyes on alewife-rich wa-

ters like Lake Arthur and Harvey's Lake, or cold-water sauger on the Allegheny, Monongahela or Ohio rivers.

Blade baits and spoons are a great presentation for dipping down into the rocky humps that hold lunker Lake Erie small-mouth bass. And they're adept at duping slab-sided crappies from deep wood cover on lakes like Pymatuning. Even monster muskies succumb to these offerings, proven by the 30-pound-plus Conneaut Lake monster taken last fall by a musky-fishing friend of mine. This fish hit a magnum-sized blade bait.

Flash and vibration

Spoons and blades work on varying degrees of flash and vibration. The effect is determined by the design of the lure. Rocker Minnows, for instance, are relatively subtle. They exhibit a slight flutter on the descent. Spoons, in general, display their action while on the fall. Lures in the half-ounce to three-quarter-ounce sizes perform best for vertical fishing.

In contrast, blade baits give off a tight vibration when you sweep them upward. They are fairly inactive on the fall.

What's the big deal over fishing vertically, anyway? A straight line is the shortest distance between two points, so fishing directly over a spot gives the angler the most control over the presentation. Of course, in most instances this kind of fishing is done

from a boat. Ice fishing is an exception, and spoons and blades fare well in this fishing situation, too.

Blades and spoons use a different triggering action to get fish to strike. That's the difference. You're inducing a strike rather than coercing a fish to bite or to feed. This is done with a combination of flash and vibration. Try to visualize this example:

On the edge of a creek channel lies a small series of stumps. The place plays host to a school of walleyes during much of the cold-water period. When the fish are active, they move shallower to forage. When inactive, they tend to hug the stumps or drop into the adjacent creek channel.

During periods of inactivity some fish may respond to typical cold-water presentations such as a jig-'n-minnow combo. It's also possible that the fish would ignore the jig. These fish are not in a feeding mood, but that doesn't mean they can't be caught.

Now what if you dropped a spoon or blade lure in front of these fish and stuck it right in their faces? What if you jigged it methodically right in front of them until the action evoked a reflex strike, a reaction attributed to the erratic, vibrating, flashing nature of the lure, rather than the need to feed?

Tipping

To tip or not to tip? Spoons and blades both work well alone, but many times the addition of live bait adds to the attractiveness of the presentation. This is especially true of spoons, which hang vertically with the hook (usually a light-wire treble) on the opposite end of the line tie.

Blades have the line tie located on the "back" of the lure, and they hang in a perpendicular fashion. Hooks are located on each end of the lure, and tipping tends to offset the balance of the lure. It can be done, however. The trick is to tip each of the trebles with a bait of the same approximate size. This maintains balance and action.

The addition of live bait should be subtle, just a slight added attraction, like icing on

***Most all gamefish
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a cake. To accomplish this, make the bait small. Small fathead minnows, ones in the one-inch to 1 1/2-inch range, are a great choice. Small ribbon leeches are good, too, but I'd limit their use to times when the water temperature is above 60 degrees. Leeches are not particularly effective in cold water.

Working spoons and blades is a rhythmic affair, a series of lift-drop-hold maneuvers designed to trigger fish. In most instances you work the lure close to the bottom. Remember—the classic scenario in using vertical baits is when trying to activate fish that are located in a defined area.

The simplest description of working a spoon is just allowing it to free-fall to the bottom. Engage the reel and take up slack line until the rod tip points in the 9-o'clock position (parallel to the water). Reel in an additional few inches of line to pick the spoon up off the bottom. Now sweep the rod tip upward for a foot or so, and then return the rod tip to the 9-o'clock position. Hold it there for a few seconds and then repeat the lift-drop-hold maneuver.

Most hits on the spoon occur while it is in the "hold" position. It seems as if the lift and fall attract the fish, and they hit the lure while it dangles gently in front of them. The aggressiveness of the jigging action, the length of the lifts, and the duration of the hold are variables to play with. I generally lift the spoon one or two feet and hold it for about five seconds. About every fifth jig I let the spoon fall completely to the bottom. This ploy probably kicks up some silt (another possible triggering action) and lets me make any necessary adjustments to keep the spoon near the bottom.

Fish blade baits as you'd fish spoons, but it's more important to keep them on a tight line during their descent. Most spoon strikes happen during the hold, but fish generally hit the blade during the fall. A tight line also helps keep the blade from fouling the line on the drop, a common problem when fishing these lures. Because blades vibrate on the lift, you need a more aggressive rod sweep to impart the correct action.

The first few fish you catch on blades will probably just "be there" when you attempt to lift the lure for the jigging motion. This is normal. But after a while you develop a feel for the cadence of your retrieve. When a fish takes in the blade on the fall, it interrupts this cadence. In some instances you realize the bait didn't fall as far as usual. Other times, the drop has a "mushy" feel to it. In either case, meet the unnatural sensation with a quick hookset.

Working spoons and blades is a rhythmic affair—a series of "lift, drop and hold" maneuvers. Most strikes occur when the offering is in the "hold" position.

Both blades and spoons can impart a nasty twist into your line. For this reason, place a barrel or ball-bearing swivel about a foot above the lure. Spoons can be tied directly to the line. Blades, however, can quickly wear away a knot if tied on directly, so use a small, round-nose snap to attach these lures.

When fishing in snag-free areas, eight-pound test is a good line choice. When fishing near cover, which is often the case, go up to 12-pound test. Use either spinning or casting tackle, but both should be rated medium to medium-heavy. Sticks in the six-foot range work best for me.

The basic retrieves previously described were just that—basic. What if you pulled your boat over a submerged brush pile in 20 feet of water and the wood rose up five feet off the bottom and is quite visible on your fishfinder? Would you want to allow your lure to free fall to the bottom? Not likely.

When fishing around deep wood, you need some finesse. The trick is to lower your bait gradually with control to keep from dropping it deep into the cover. When you do make contact with a tree branch, gently jiggle the rod tip. In most cases you won't get snagged. Fish the edges of the cover—the sides and top—rather than plunging into the thick stuff. It's a methodical but productive fishing tactic.

Remember the common denominators for this kind of fishing: Schooled gamefish holding tight to defined locations, and fish that won't respond to presentations aimed at their "feeding" mechanism. When you find this situation, dig 'em out with blades and spoons.

OCTOBER Dry Flies & Trout

by Dave Wonderlich

I like October. I like the invigorating chill in the air, early in the morning, when we rise for the day. Around us the signs of autumn increase daily. Without knowing the date, we know the seasons are changing, moving toward winter when the trout's life is less active and their dining much more frugal. Still, it is October, and October is kind enough to relieve the angler for a few more weeks—for a few more warm-weather fishing trips.

I believe trout like October, too. Grasshoppers, crickets, small terrestrials, Baetis, midges and caddises are all still making their appearances on the surface of the water. Even though dining isn't what it was in May, it is still good.

With the colder air and subsequently colder water temperatures, a natural phenomenon takes place that we often over-

look. During the hot summer months, trout are deep in pools where the water is cold enough to hold oxygen sufficient for survival. Because cold water sinks and warm water rises, deep holes, especially at the base of rapids where water is mixed with air, are the trout's haven in warm weather. Springs that enter these holes along mountainsides deep under the water's surface also serve to keep the water on the bottom refreshed and supportive for trout.

October changes all this. Colder nights and cooler days translate to lower water temperatures that in turn provide an optimal environment throughout the creek—the trout now have their preferred water temperature, the water is well-oxygenated, and there is still food available other than subsurface insects, crustaceans and minnows.

My fascination with October trout got its start during the archery hunting season more years ago than I'd like to think possible. I was hidden behind an old fallen tree about 20 yards from a deer trail that rivaled any cow path for wear. To my left was a steep hillside, in front was a bench the trail crossed, and below was a series of pools that make up a great stretch on one of Pennsylvania's finest trout streams.

Dawn wore on to mid-morning and the woods still gave no hint of deer. My sweater and camo outer clothes just started to feel a little warm when I heard a sound that didn't fit in with the rest of the noises that were usual for the morning. A slurping splash immediately drew my attention to the stream and those glass-watered pools moving slowly below me. Fall has not been the same since.

I was fascinated by those trout and the



photos by the author



OCTOBER Dry Flies & Trout

After you cast your fly, be ready to set the hook as you follow the fly in the current. When you see the splash of the take, hook the fish immediately. The trout act quickly, and that sets the pace of the fishing.



insects they were consuming. At the time, the creek I was watching was closed to fishing, but that made no difference to the trout. The more I watched, the more I realized they were feeding with abandon—a few last chances at the good life, before the freeze.

I moved closer, within casting range, and noticed midges on the water—not unlike mid-summer's hatches. All I lacked was a stream it was legal to fish and my equipment, which was stowed in the Jeep a mile-and-a-half away.

While walking back along the trail my thinking centered on the feeding trout. I realized the stream activity was taking place during the sunniest and warmest period of the day just as it does earlier in the season. The water warms, the flies hatch and the trout feed. I couldn't wait to get back to the car, parked along Big Pine Creek at the mouth of the little tributary I had been hunting near, to drive downstream to a few trout-producing pools I often frequent in the spring and early summer.

The flies were there and so were the trout. In August on the big creek it was hard to

see a trout feed, especially during the day. Now with the new colder stream conditions, they were near the surface again taking advantage of the food.

As I waded into the clear, quiet water, waves spread out across the smooth sur-

face, indicating to the aquatic world that there was an intruder. Unfortunately, anticipation sometimes produces impatience; in the typically lower water of October you must be especially patient, quiet and deliberate.



Effective flies include (top row from left) inchworm, weanie, black beetle, red ant, black ant, Dave's Hopper, (bottom from left) Baetis soft-hackle emerger, Baetis sparkle dun, Baetis dark spinner, size 28 black midge, and size 28 white midge.

The midday sun bathed the large pool in its warmth and erased the morning shadows. The stream had cooled enough to have a chill I could feel through my waders. The water's surface, above my waist, was very clear, calm, and contained an occasional small midge. As I tied an extra three feet of 7X tippet to give me a 12-foot leader for the low, clear conditions, a fish fed a third of the way toward me from the opposite bank. A feed in that location was typical for early May. Everything but the low water level made standing there seem like the third or fourth week of a new trout season.

There were more surface feeds throughout the length of the pool and all about the same distance from the farther bank. I tied on a size 20 cream-bodied midge that had grizzly hackle, no wings, and a cream tail combined with a few barbules of grizzly. It was well-dressed, and after the cast it gently landed on the mirrored surface. After a 20-foot float, I picked the fly from the water with a false cast, and placed it in the same direction but five feet farther away. It floated high for two feet and then disappeared in a swirl. There was no hesitation from that trout. I lifted the rod tip, set the hook, and I'm afraid I was the one hooked—on fall trout.

The pool was so quiet and the day so still that each jump and splash of the trout seemed to be part of a special struggle. I seemed to be more of an intruder than I had felt before—a predator quietly casting my counterfeit fly in the tranquil setting.

The trout calmed, I drew it toward me, and ran my fingers along the taut leader to the fly, hooked in the lip of the brown trout. I gently cradled the fish and with my other hand gave a twist of the hook. The trout hung motionless under the surface for a moment. Then in a black streak it disappeared into the darkness of the deeper water.

I caught and released more trout that day, all on the same little midge. Since then, with the tremendous job the PA Fish and Boat Commission has done in classifying and regulating the streams of Pennsylvania, many waterways, large and small, are now available for fall (as well as winter) trout fishing.

Fall trout fishing with dry flies has not changed since that October day. Most of my favorite pools have not changed, either, although I believe there are more trout in the creeks for the fall (and winter) angler today because of stricter stream-by-stream regulation. They are protected and managed as a resource. These regulations provide

the opportunity, with some help from nature, for trout to be in many of our streams year-round.

Before going afield, it is best to consult the *Summary of Fishing Regulations and Laws*, which comes with all fishing licenses. Look for specific regulations governing the stream or lake you plan to fish.

Small streams

Fall dry fly fishing on small streams, if you can cast through the undergrowth, is a little more forgiving and the trout a little more willing than on larger creeks. Small-stream trout typically have less water depth to provide protective cover, and less water surface to cruise for a meal, so the length of time they have to decide whether or not to grab food is much shorter. A trout waiting in small-stream pocket water has only seconds to take an offering, decide not to take, or have the food eaten by another hungry fish. The trout know they must act quickly, and that tempo sets the pace for small-water fishing.

After you cast the fly, you must be ready to set the hook as you try hard to follow your minute offering in the current. When you see the splash of the feed at your fly, you must hook the fish immediately. There is not much rhythm—either you hook NOW or the fish is long gone.

The mountain run in the fall can provide as much action as it does in May. You need stealth, a low profile, and very careful casts with fine leaders and small flies or terrestrials, although the trout tend to be less selective on this kind of water. If you use a size 20 on the big water, you may get away with a size 16 or 18 on the small creek. If you are getting a refusal after your fly travels into the small pool, you will have to resort to the same fine tippet and minute fly as on the large creek.

Fishing "small"

When you are fishing midges, you want to fish small, but never smaller than necessary. The larger the hook, the better the hooking and fish-holding qualities. I tend to start with larger flies and work my way down. If the trout take a size 20 midge on a 7X tippet, why exasperate your patience with a size 28 on an 8X tippet?

At the same time, you must know when to stop trying larger flies and switch to those tied on very tiny hooks. Experiment with a size 16 and then size 20 in cream and gray. If you get no rises, go smaller. If still no rises, switch colors. I carry several patterns tied down to a size 28 hook.

If you get a rise but no take, before switch-

ing flies, try tying on three feet of the next finer tippet while still using the same fly. A few years ago I was fishing during the fall to trout rising to midges. The water was low and clear and I could see the trout rise to my size 28 fly tied on a 7X leader, and I could also see the fish turn away in refusal. After casting repeatedly with the same results, I took time out and tied on three feet of 8X tippet, used the same fly, and caught one trout after another. Whether we like it or not, we have to give the trout what they expect, and that smaller tippet was enough to hide the fact that the fly was an imitation.

The exception to the small fly and fine leader situation is during or after a rain. When the stream is on the rise, larger dry flies and terrestrials work well. This is a time when larger trout will take a surface fly, because so much food is washed into the stream that trout become less selective, and because the increased flow gives the trout more surface area to feed from while providing more protection from predators. Any time the water's surface is broken, trout are less wary. Watch for these days in October.

My normal dry fly patterns I tie as small as size 18. From there down I have colors that I keep stocked in my midge box to match almost any very small fly I'll see on the stream. I keep an ample supply of size 20, 22, 24 and 28 midges in cream, black, yellow, olive, tan, gray and white with the smaller sizes tied without wings.

The size 24 and 28 I tie with and without tails—a small fly without a tail makes it appear half as small as those with a tail and has been a factor for many picky trout I've hooked.

Along with midges, a fly box stocked for surface feeding fall trout should include the small (fall) Baetis in the emerger with soft hackle, Baetis sparkle dun, Baetis dark spinner, a size 14 tan caddis, grasshoppers, crickets, black and red ants, black beetle, green inch worm, and the green weanie, which the trout probably take as a caddis larva. The old standby size 16 Adams and Light Cahill are always good producers, particularly on smaller creeks—but you shouldn't be without them.

Throughout Pennsylvania during October the fall population redistribution of trout takes place, and the fish again go on a feed before the leaner times of winter. Take advantage of the moment in one of your favorite springtime haunts. The trout, the flies, the crispness of the air and the solitude of October's creeks will call you back again.

Cast and Caught



Donald Parsons, Jr., shows off the five-pound, three-ounce rainbow trout he caught last April in Bowmans Creek, Wyoming County. A spinner was the rainbow's downfall.



Four-year-old Bobby Klepacki holds the results of his first fishing trip—an 18-inch, 4.5-pound rainbow trout and a 19.5-inch, five-pound rainbow trout. He caught the pair at a fishing tournament on Darby Creek, in Havertown. Not bad for a first trip, Bobby!



Jerry R. Sturgeon, of Warrington, PA, shows off the 6.37-pound, 23.25-inch-long shad he caught in the Bucks County portion of the Delaware River last April. A shad dart did the fish in.



Holly Kiefer, of Fairfield, hefts a one-pound, six-ounce yellow perch she caught in Lake Marburg last June. Holly caught the perch on a worm. The perch was the biggest one her parents saw out of Lake Marburg in 15 years. Nice catch, Holly!



Dennis Harvey, from Ebensburg, shows off the 24-pound, 37 1/2-inch flathead catfish he landed last May. The fish was taken from the Armstrong County section of the Allegheny River.



Jean T. Rosko, of New Cumberland, took this nice brown trout from the Yellow Breeches Creek in Cumberland County. The fish, caught on a C.P. Swing, weighed 5 pounds, 14 ounces and was 24 3/4 inches long.

ANGLERS CURRENTS



Jeffrey Hetzel, from Castanea, earned a Fish and Boat Commission Junior Angler's Award for this 7-pound, 8-ounce largemouth bass. He was fishing in Faylor Lake, Snyder County, when the 22 1/4-inch fish took his plastic worm. Nice job, Jeffrey!



Ten-year-old Timothy Stuffle caught this nice brook trout from the North Branch of Perkiomen Creek while on a Cub Scout camping trip. The fish weighed three pounds, three ounces and was 19 inches long. Nice fish, Tim!



Monongahela resident Emory Delsandro, Jr., fooled this hefty Youghiogheny Lake brown trout using a flatfish. The fish weighed 8 pounds, 1/4 ounce and measured 26 inches long.



A five-pound, four-ounce rainbow trout was Elkland resident Michael G. Schwarz's prize last April while fishing the Genesee River in Potter County. A worm was the trout's downfall.



Eight-year-old Daniel Maxwell, of Duncannon, holds up a four-pound, five-ounce palomino trout he caught in Little Juniata Creek, Perry County, last opening day. The 21-inch-long fish had a 12-inch girth. Nice catch, Dan!



Titus Wingert, of Three Springs, caught this five-pound largemouth bass in Raystown Lake last April. Wingert fooled the bass with a minnow.



Don Michael, Portersville, shows off a yellow perch he caught at Pymatuning Reservoir last April. The fish weighed one pound even and was 14 inches long.



Charles Sechler, of Haverstraw, NY, holds a six-pound rainbow trout he caught last May at Alvin R. Bush Dam, Kettle Creek State Park, Clinton County.

Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine

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Act 1982-88 provides that certain records of the Pennsylvania Fish and Boat Commission are not public records for purposes of the Right-to-Know Law. This means that the Commission can place appropriate conditions on the release of such records. The Commission has decided

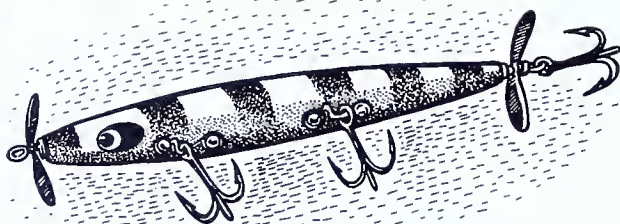
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If you do not want your name and address included on the subscriber mailing list to be made available to the described organizations, you must notify the Commission in writing before January 1, 1993. Send a postcard or letter stating, "Please exclude my name and address from *Pennsylvania Angler's* subscriber mailing list." Send these notifications to Eleanor Mutch, *Angler* Circulation, P.O. Box 67000, Harrisburg, PA 17106-7000.



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

Angler's Notebook *by Joe Reynolds*



Most any type of topwater plug can be used in calm water. In choppy water, stick with plugs that make the most disturbance and noise, like propeller lures and chuggers.

Trout become more active and feed more aggressively when water temperatures drop below 50 degrees in the fall. Outside of opening day, fall is also the time when an angler is likely to catch a trophy trout.

Have you stored your boat for winter? Before you do, renew the wheel bearings. If you don't know how to perform this maintenance yourself, let your dealer do the job, because taking apart the insides of the hubs requires special tools and close tolerances.

Bass fishermen should concentrate on the shallows during cool fall weather. Use topwater plugs or shallow-running crankbaits.

When waters are low and clear during fall months, it is even more important to use the smallest-diameter lines and tippets. Unless water obstructions are a major problem, clear water dictates use of at least four-pound test line for maximum catches.

Trout tend to feed more on minnows in the fall months just before freeze-up. A streamer fly or small spinner is effective then for fall trout.

Cold water initiates a biological reaction in many gamefish that prompts increased feeding activity. Biologists believe this increased feeding is necessary so that fish can store fat for proper egg development in preparation for the spring spawn.

River and stream fishermen, whether after trout or bass, should use upstream casts when fishing in low, clear water. Fish face upcurrent, so a fish is less likely to see and be spooked by an angler cautiously working his way upstream.

Fall is a prime period for pike and pickerel. Concentrate on water about five feet deep near weed beds, lily pads or other structure that may provide an "ambush" spot for a hungry fish.

The best bet for fall success on all species, but especially on trout streams, is to fish areas that are not easily accessible. Such locations are most likely to hold trout that survived the spring and summer fishing pressure.

Weather changes can be drastic in the fall. For the best success with bass, try to be on the water on sunny, warmer days following a sudden cold snap.

Spoons are a good choice for catching bass in deep water. Lower the spoon to the bottom and then jig it up and down about 18 inches. Most strikes come when the spoon is on a downward path.

Tournament anglers average about one cast per minute of fishing time, on the obvious premise that a lure can't catch fish unless it's retrieved in the water.

illustration- George Lavanish

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On the Water

with Dave Wolf

"October—when opportunity knocks at too many doors."

The chill of October—the warning that another season of fishing and boating sun-splashed waters is about to end. The chill brings forth the long-sleeved shirt and perhaps a sweater to top it off. My fishing and boating will be shortened by the length of daylight and colder weather.

The year has been filled with leaping bass, brilliant bluegills and of course the highly sought-after trout. I recall a brief encounter with a musky that cut my line and I secretly enjoyed the long runs and tremendous battles I had with the lowly carp. Channel catfish made my reel sing and I had long tug-of-wars with wall-eyes trolled up from the waters of Lake Erie. All in all, it had been a good spring and summer, and stringing the rod for an October fishing outing is at best hard to describe.

The hardwoods in all their splendor, the trout waters once again cool enough so that afternoon hatches and rising trout are to be expected. The calls will soon come in; the stripers are on the move at Lake Wallenpaupak and Raystown; big bass are putting on the feed bag on the Susquehanna; and steelhead and coho are moving into the tributaries of Lake Erie. The calls and the shortening days bring about a certain degree of anxiety. Time seems precious now; too many fishing opportunities occurring at once and only so many days that are available to me.

Weekends become crammed and they are times I would like to be cloned to capture it all. To waste not one minute. My casts from the bass boat are now more feverish. I want to cast as often and as quickly as I can. I want to capture the large bass quickly, because later today a hatch of cream-colored mayflies will be coming off of one of my favorite trout streams. I want to make that one last trip to Erie and my heart longs to tangle with a large striper before winter closes in—and the Susquehanna River and its abundance of smallmouth. A river I cross daily to and from work. A river that calls to me. The waders, rods, reels and vest are always at the ready; stashed in my vehicle, in case an opportunity presents itself.

Fall is that way, a transitional period; a time for trout and salmon to head to their spawning grounds in an effort to replenish the rivers with their own kind. The turning of the leaves, the last of the better mayfly and caddis hatches. Streams chilled to just the right temperatures before becoming uncomfortably cold. It is now that moments that will last a lifetime are created or lost.

A strong wind comes upon the river, and the bass feed below the wind-swept currents. A few hundred miles away a man tussles with a steelhead fresh from Lake Erie. On Lake Wallenpaupack a heavy bodied 20-pound-plus striper is peeling line from an angler's reel. Somewhere in the northcentral sector of the state a trout rises to a small mayfly imitation on waters that run clean and pure.

Now my rod tip jerks downward abruptly followed by the heart-stopping leap of a copper-etched smallmouth. One leap is followed



by another and then another. I stand in the river, the water swirling about the neoprene waders, and I am glad that I am here. The bass is an amazing fighter, one that deserves the recognition it has received. As I lift him by the lower lip to retrieve my streamer and set him free, my eyes dart back and forth scanning the great river from which this fish has come. The bass darts back into the river and I cannot help but be overwhelmed by nature and all it affords. I, too, cannot help but realize that if I did not fish, I would not appreciate rivers, lakes and streams to the degree that I do.

If I did not fish, there would be no need to know about mayflies or when the spawning of various species occurs. No need to stand in the middle of a river during the chill of October. I, too, would not come face to face with the creatures that live there. Tomorrow perhaps I will head northward to yet another experience. Now, I am content to be where I am and I am pleased that many years ago, someone taught me how to fish.

ANGLER

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The Keystone State's Official Fishing Magazine

Straight Talk

A Beautiful Day on the Susquehanna



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

Thursday, October 1, 1992, was a picture-perfect autumn day for Pennsylvania and the Susquehanna River watershed. However, the most rewarding event took place in the conference room of the Commission's executive headquarters in Harrisburg. Representatives from Baltimore Gas and Electric, Pennsylvania Power & Light, and Metropolitan Edison met with the Commission to negotiate an agreement on installation of fish passage facilities at Holtwood Dam, Safe Harbor Dam and York Haven Dam on the lower Susquehanna River.

Others participating in these important discussions included the U. S. Fish & Wildlife Service, Maryland Department of Natural Resources, Susquehanna River Basin Commission, Pennsylvania Federation of Sportsmen's Clubs, Federal Energy Regulatory Commission, and the Upper Chesapeake Watershed Association.

This six-hour negotiation session concluded with an agreement in principle by all involved parties on necessary steps and schedules for building state-of-the-art fish-passage facilities concurrently and as quickly as possible at Holtwood and Safe Harbor dams. Construction of facilities at York Haven Dam will be completed within three years after the Safe Harbor lift is put into service.

The utility companies have already assigned personnel to serve as project leaders at each of the three dams and will immediately move forward with a selection process for qualified design engineers. Along with the design efforts, hydraulic modeling of the three proposed facilities will be conducted by a qualified hydraulic laboratory so the most effective design and operating procedures can be determined. Additional fish behavioral studies will be performed with these efforts. On completion of these scientific and engineering studies, final designs will be selected and approved by involved dam owners and resource agencies so that construction contracting can begin and construction bids can be accepted. Construction of the facilities at the lower two dams is expected to take 18 to 20 months.

Some shad spawning success is expected in sections of the river between Safe Harbor and York Haven dams, and behavior of the fish in this section of the river will be closely monitored to determine whether the construction schedule at York Haven needs to be accelerated.

What does all this mean? It means that by the spring of the year 2000, or before, all four major dams on the lower Susquehanna River will have upstream fish passage facilities that will allow upriver movement of anadromous fishes from the Atlantic Ocean via the Chesapeake Bay. It will be the largest single step in the Commission's long-term efforts to restore anadromous fishes, especially the American shad, to the Susquehanna River basin. This effort began in the Commonwealth when Governor Curtin signed the law and appointed Pennsylvania's first Commissioner of Fisheries nearly 127 years ago. For me, this event is also a source of great personal satisfaction, because I have been deeply involved in the Susquehanna River restoration efforts for nearly 33 years. Many Commission staff members and other involved parties deserve credit for their long-standing efforts to reach this historical point.

The fishery of the entire river system will eventually benefit from these three passage facilities, which will be operated in tandem with Philadelphia Electric Company's new lift at Conowingo Dam in Maryland. Migratory fishes will be able to return virtually to all spawning and nursery habitat within the Susquehanna River basin for the first time in nearly a century.

The agreement in principle reached on October 1, 1992, will go down in history as one of the most memorable days for the Commonwealth of Pennsylvania, and the Pennsylvania Fish and Boat Commission.

It will be remembered forever as "a beautiful day on the Susquehanna."

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Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine

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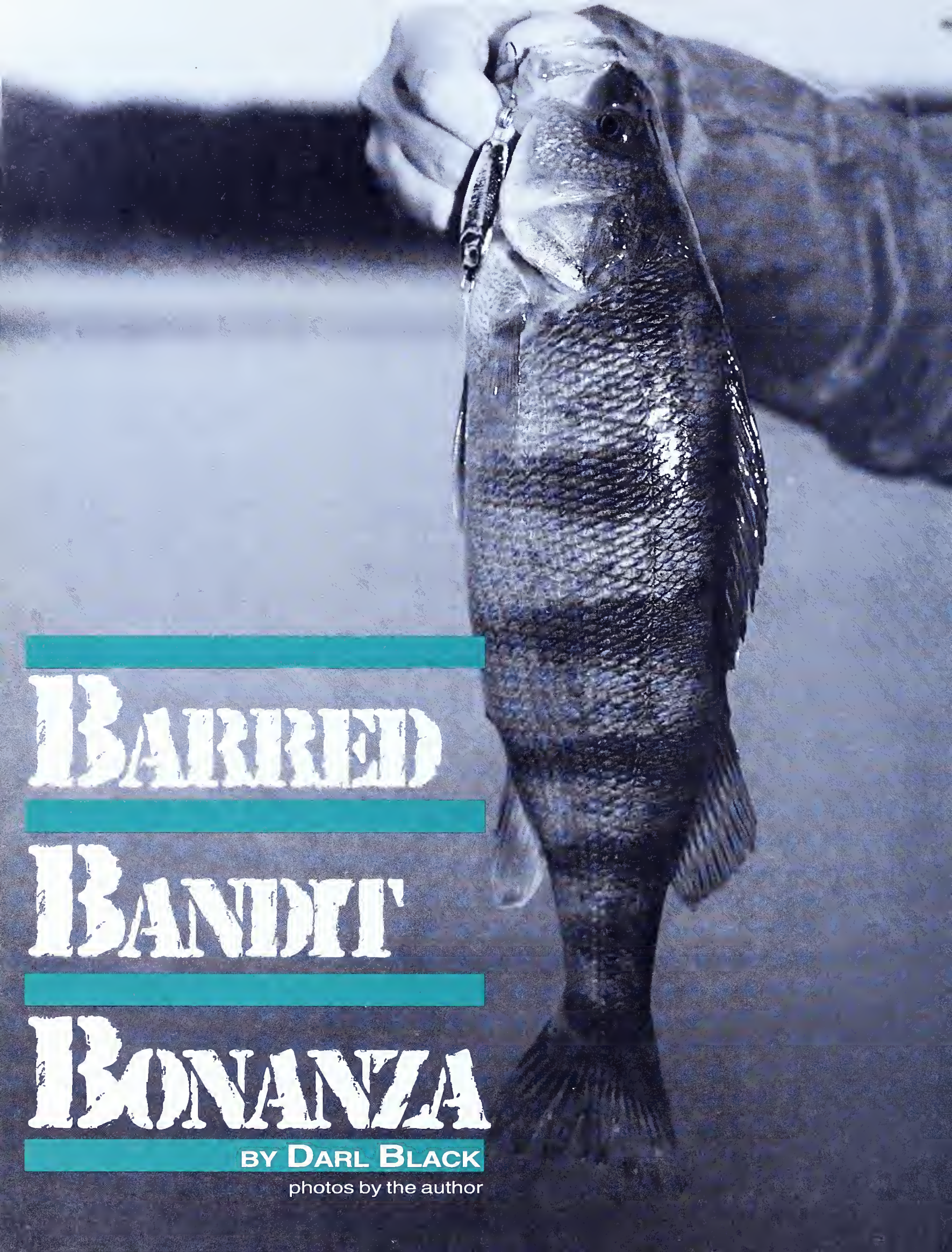
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The covers

This issue's front-cover painting by Fred Everett originally appeared on the April 1938 *Pennsylvania Angler* cover. Because the original painting was recently made available to the Commission again, we thought readers would enjoy seeing this classic, 54 years later. Let it remind us anglers of timing, and how important timing is to catching big fish. With timing in mind, in this issue you can find the details on how to get in on many top-notch angling chances this month. For instance, panfish enthusiasts should scan the article on page 4. Sauger fishermen will want to check out page 14. Largemouth bass anglers can find eye-opening information on pages 8 and 26. Walleye fishermen won't want to miss page 16, and steelhead anglers will find essential details on page 22. Trout fishermen and fly tiers will want to turn to page 12, and to go back 200 years as a fly fisherman, see page 20. This issue's back-cover walleye was photographed by Doug Stamm.



BARRIED

BANDIT

BONANZA

BY DARL BLACK

photos by the author

It started like many other fall fishing outings when Dave Hornstein and I get together. We began searching for walleyes, but after four hours of 'eye hunting without being rewarded with a single fish, we decided to rethink our game plan.

"Admit it," I prodded Dave. "Some days we just get snookered by the walleyes. Maybe the crappies will cooperate." We motored the boat to a stump-lined creek channel bend that usually holds fall crappies, and we downsized our offerings to 1/16-ounce jigs tipped with the smallest fathead minnows we could pick out of our bait bucket.

My initial cast settled directly into the root tentacle of a stump and lodged solidly. While I maneuvered the boat in an attempt to dislodge the jig, Dave cast onto the clean flat above the channel lip.

Something smacked his jig on the drop. His hookset resulted in a fish.

"Doesn't feel like a crappie," he commented. "Fighting more like a small walleye." It turned out to be a yellow perch. A very plump, very desirable yellow perch.

By now I had retrieved my jig. On my next cast, I connected with a fish. When I lifted a fat perch over the gunwale, Dave remarked, "Any guesses what we're having for dinner tonight?"

We then began earnestly fishing for perch. A very light breeze moved the boat slowly across the flat. The depthfinder pegged the water at exactly 10 feet deep. Every third or fourth cast was rewarded with a perch.

Then a real flurry started. We had a strike on every cast. If we missed the initial hit, another perch would smack the jig-and-minnow before we moved it two feet.

Glancing at the depthfinder, I noticed a two-foot difference in depth and a much harder bottom reading. I quickly checked our position with a shoreline landmark and realized we had drifted onto an old roadbed. I immediately dropped a marker, circled around on the electric motor and put out an anchor upwind of the roadbed.

Dave was hooking and landing most of the fish, even though we received an equal number of strikes. I set the hook immediately on a strike, but missed many perch. Dave, however, delayed the hookset for a second or two. He rarely missed a fish. When I began following suit, I started getting more hookups. We were keeping only the largest perch and immediately releasing the others.

Then suddenly the action ceased. Lifting the anchor, we lapped the marker several times with the electric motor but could not make contact with the perch school again.

A livewell check showed enough jumbo perch for several fish dinners. The catch was even more impressive because it was from an impoundment that I had never considered a good waterway for perch.

It's a scenario I've repeated every fall with these barred bandits. During the summer, tiny yellow perch are regarded as nuisance fish, stealing bait intended for walleyes or slab crappies. Then with the cooler water of autumn, jumbo perch make an appearance. For the angler who spends all summer plucking small perch from a hook, fall is a bonanza.



Blade baits can help you locate yellow perch. Here (left to right) are a Cicada, Silver Lucky and a Bullet.

LOCATING FALL PERCH

On many waters I have no idea where the jumbo perch go during the summer. But anglers who enjoy tasty panfish fillets welcome their appearance around October.

Figuring out the daily movement of perch in the fall is tricky; their activity is tied to roaming baitfish schools. However, when



you locate perch, they are perhaps the easiest fish to catch. Perch always seem to be feeding. If you find them, you can catch numbers of perch with one or two simple presentations.

On good perch waters, locating the fish usually isn't that difficult. On waters not known for strong perch populations, finding fish may require more effort. In many waters, yellow perch are the migratory marauders of fall—here in the morning, gone in the afternoon.

As the water begins to cool in the early fall, expect perch to gravitate toward shallower water. My experience shows eight to 15 feet to be a fairly common depth on reservoirs (manmade impoundments), and 10 to 25 feet is more likely the range on deep glacier-created natural lakes.

As the water temperature drops lower in the late fall, some perch schools move deeper. Just before ice-up I have taken perch as deep as 50 feet on some waterways, but as shallow as 10 feet on other waters.

Perch may relate to cover or structure breaks, much the same as crappies or bass. Yet they are just as likely to be found on relatively barren flats. Perch certainly do not have an obsession with objects.

However, the best approach in the fall is to start out checking traditional structure first. This might be creek channel edges, dropoffs, submerged humps, rock piles, and even the remnants of the deep weed edge—depending on what is available on the particular water you are fishing. If you encounter perch, begin drifting over the flats in the 10- to 25-foot depths.

The depthfinder may be used to locate perch in deep water. Perch are a schooling fish, and when tightly balled up, they may appear on a paper graph or a liquid crystal depthfinder as a solid mass near the bottom. I have encountered concentrations of perch in deep water that gave false bottom readings on a liquid crystal because the school so tightly compacted.

Throughout the season perch feed over a variety of bottom compositions ranging from rock and gravel to soft mud, depending on the forage they are seeking. In the early fall to mid-fall, you generally find perch over firm to hard-bottom areas—including sand, pea-size gravel, rock rubble or firm marl. In the late fall, just before ice-up, I often discover perch moving onto soft muck bottoms.

PERCH PRESENTATIONS

More often than not, I contact fall perch while fishing for walleyes. This tells you two things:

- Yellow perch are frequently found where you expect to find fall walleyes. (Actually it's vice versa—the walleyes are probably in that location to feed on perch and the minnow forage that the perch are eating.

Yellow perch are taken on the same lures/baits used for walleyes.

My number-one lure for locating perch is a jiggging spoon or blade bait. This flashy hard-metal presentation represents injured baitfish. These lures are jiggged vertically in a yo-yo fashion directly under the boat. It is an efficient way to cover deep structure as you move along with the electric motor.

Even though perch can be taken on walleye-sized blades and spoons, when specifically fishing for perch, downsize to 1/4-ounce or 3/8-ounce lures on a medium power spinning rod with eight- or 10-pound line. Typical lures in this category are the Hopkins, KastMaster, Crippled Herring spoons, and Sonar, Gay Blade, Cicada, or Bullet blade baits.

Hard-metal presentations generally trigger the most aggressive fish, thereby giving away the location of the school. You can pick up more fish by switching to a jig or live minnow presentation.

If the spoon or blade isn't your cup of tea, start searching for perch with a jig. Casting or drifting a jig tipped with a two-inch minnow can be as effective as any spoon or blade.

The weight of the jighead depends on the depth of the water—maybe as light as 1/16-ounce or as heavy as 1/4-ounce. However, try to keep the hook size at either size 6 or 8. The jighead can be dressed with a soft plastic body in addition to a minnow, or simply use a plain jighead with the minnow hooked through the jaw. It really doesn't matter; both are effective.

If you don't have minnows for tipping, don't worry. Soft plastic twisters or mini-tube bodies fished without live bait take perch, too. My favorite perch jig is a tinsel body tipped with a two-inch length of plastic worm.

There is one more presentation you shouldn't overlook. It is the double-hook (or triple-hook) live bait rig. On the Great Lakes it is known as the perch rig, down South it is called a crappie rig. Whatever you call it, it is a practical live bait rig for any minnow-eating panfish in deep water.

After experimenting with different rigs that require multiple knots, I have settled on a variation that uses Line Leader Connectors (Bear Paw Tackle, Bellaire, MI 49615) and any quality snelled hooks.

A Line Leader Connector is a small nylon sleeve with insert clip that permits attaching snelled hooks without knots. This method eliminates four knots on the two-hook rig.

First, tie a snap or snap-swivel on the tag end of the line. Choose a bell sinker of appropriate weight for the depth to be fished (1/4-ounce to 3/4-ounce), and slip it into the snap. The snap lets you change the weight easily. Eight to 10 inches up the line from the sinker attach a snelled hook (size 8 or 6) with the Line Leader Connector according to the directions on the package.

Then 12 to 14 inches from the first hook, use another leader connector for the second snelled hook. You can add a third hook about 12 inches farther up the line if you want.

About six inches above the last hook connection, snip the line and tie a quality swivel in-line. This swivel greatly reduces the line twist that occurs with this type of rigging.

Each hook is baited with a live minnow, either lip-hooked or tail-hooked—your preference. The rig is lowered straight down until the sinker touches the bottom. Don't let the line slacken. Maintain tension between the sinker and the rod tip. In this manner you can detect even the lightest perch hits. It is not uncommon to pull in two perch at a time with this rig.

When it comes to fall perch fishing, there is nothing complicated. It is as simple as finding the perch, choosing a presentation, and catching them.



You'll find Pennsylvania's biggest perch in waterways with depths greater than 30 feet, in waterways with ample gravel or rock-rubble, in waterways with moderate weed growth, and in waterways with abundant open-water schooling baitfish.

WHERE TO GO

Where should you seek perch in the fall? Just about anywhere. Almost every natural lake and reservoir in the state has a population of yellow perch. Although considered a fish of impounded water, yellow perch are also found in the state's river systems. They are very adaptable.

Perch, however, generally achieve their maximum growth in large bodies of water with the following characteristics:

- Deep-water basins greater than 30 feet.
- Ample gravel or rock-rubble bottom.
- Moderate weed growth.
- Abundant open-water schooling baitfish.

Lake Erie is Pennsylvania's premier yellow perch waterway. Fall fishing can be fantastic in 40 to 60 feet of water a few miles offshore. However, there is no need to journey to Erie to enjoy outstanding fall perch fishing.

Some of the waters I have experienced memorable perch fishing include three of Pennsylvania's largest impoundments—Lake Wallenpaupack, Raystown Lake and the Allegheny Reservoir. But there are many more lakes to investigate, including smaller waters that don't fit the profile of a perfect perch water.



Kahle Lake's 250 acres of shallow water is one such water. About seven years ago Kahle gave up stringers of the biggest yellow perch I have ever seen. Numbers of perch were taken that weighed more than the 15-inch legal walleyes from the same lake!

Some waters provide great perch fishing for a couple of years, and then they drop off to mediocre fishing, only to return to peak fishing a few years later. Even waters that have developed a reputation for stunted perch show off their best fishing in the fall. There is probably a sleeper lake near your home.—DB.

Last-Chance Lunkers of Yellow Creek Lake

by Jeff Knapp

photos by the author



My boat's surface temperature gauge registered 45 degrees as I ventured out onto Yellow Creek Lake's chilly waters. With Thanksgiving a mere week away, I knew the late-fall big-bass bite would be on.

Just a few hours of daylight remained, but it was the warmest part of the day. As the sun slipped into the western horizon, I lobbed a brown jig-and-pig onto a shallow flat that quickly gave way to a deep creek channel. I knew that when the cold-water bass are active, they migrate up onto this flat. But was anybody home today?

A gentle tick interrupted the jig's descent and the line headed off for deeper water. Reeling up the slack, I set the hook hard enough to bury the bulky hook into the mouth of a tough, old largemouth.

Had I caught this fish in the summer, it probably would have fought part of the battle on the surface. But now it chose a bulldogged wrestling match in the depths.

When the massive critter was finally in the boat, it stretched the tape a tad over 24 inches. Its bulk actually made it seem shorter. I gently placed the fish back into the water and admired it for the time necessary to etch its beauty in my mind. Then I watched it swim back to freedom.

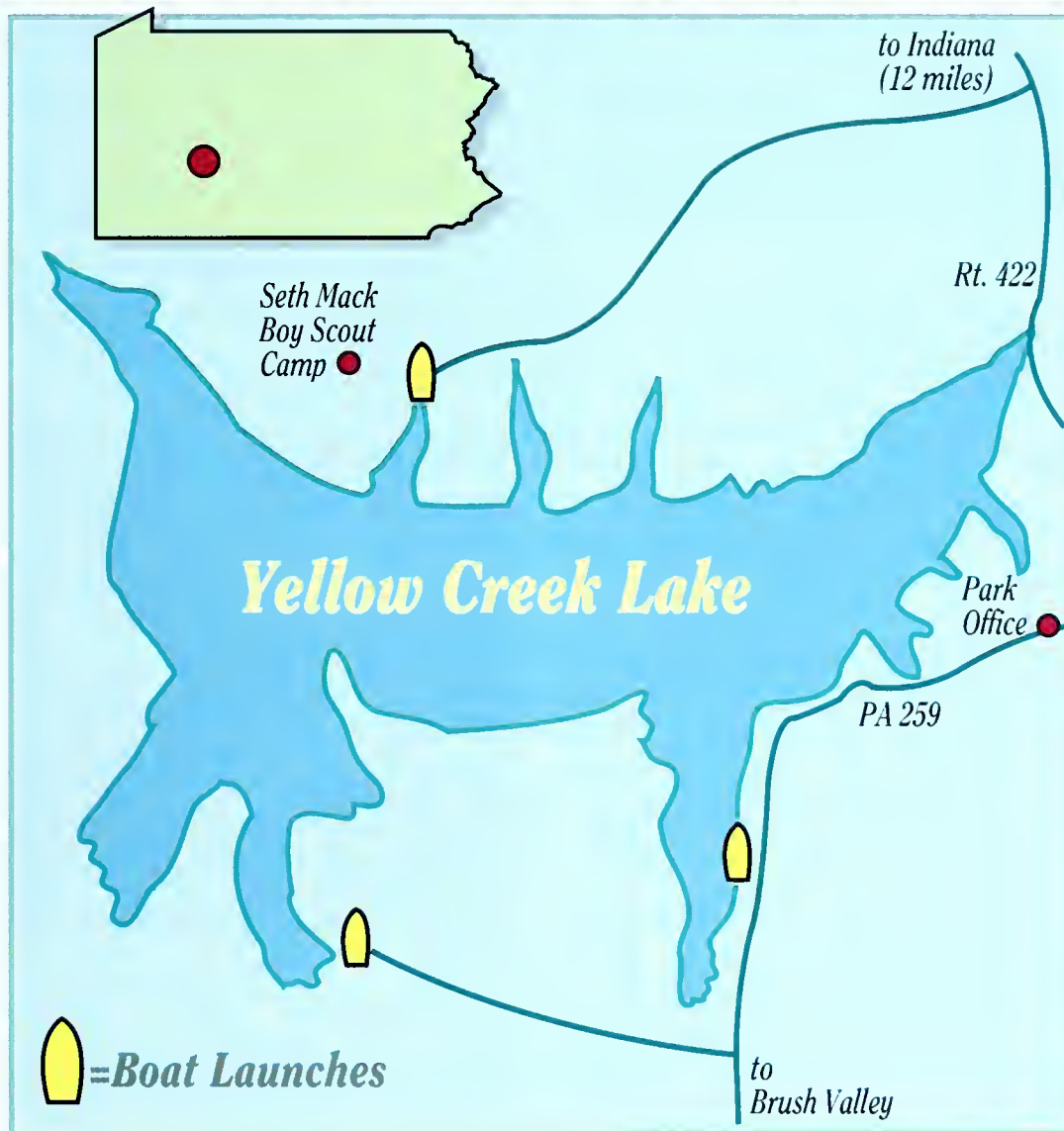
Over the years my partners and I have had the good fortune to have taken many big bass from this impoundment, fish over five pounds. Most of them have come in the cold-water period, when the surface water temperature was below 50 degrees.

Background

Yellow Creek Lake is the main attraction of Yellow Creek State Park. It is located in southern Indiana County. Impounded over 20 years ago, the lake is now coming into its own as a bass fishery.

During the early years of its existence, Yellow Creek was twice drawn down dramatically for construction purposes. This postponed the creation of a stable pool and delayed the buildup of the nutrients necessary for a healthy fishery. Also, two of the lake's major feeders, Yellow Creek and Little Yellow Creek, were subject to occasional influxes of acid mine drainage. In recent years, the drainage problem has been practically eliminated. The stable pool coupled with improved water quality has enhanced the bass resource.

In the early years, Yellow Creek Lake was better known as a decent producer of northern pike. An occasional pike is still taken, including some nice specimens, but surveys conducted in 1989 by Area 8 Fisheries Manager Rick Lorson indicate that the pike population has diminished.



The 1989 survey was the first on Yellow Creek Lake since 1980, and a comparison of the data was revealing. The numbers and general health of pike species such as muskellunge and northern decreased, and the black bass population took a dramatic upswing. This included smallmouth bass, which were introduced in 1982 and

stocked in 1984 and 1987. Lorson thinks the smallmouth bass population is healthy and self-sustaining, and that the smallmouths use different habitat in the system than the largemouths.

The quality of the black bass fishery, coupled with the high level of angler interest, led Lorson to recommend that Yel-



How Old is That Bass?

When you kill a largemouth bass over six pounds, which is an unofficial designation of a true "trophy" bass, did you ever consider how long it took that fish to attain its size? On Yellow Creek Lake, where the growth rate of bass is fairly representative of the state average, it takes about six years for a fish to reach legal (15-inch) size.

During Lorson's 1989 survey, his crew came up with largemouths as old as eight years, fish that measured as long as 19 plus inches. A six-pounder generally stretches the tape to at least 22 inches, so you can see what kind of resource you're removing when you kill a lunker bass.—JK.



Yellow Creek Access

Four launch ramps are available on Yellow Creek Lake. One is located on the north shore of the lake near the Seth-Mach Boy Scout Camp.

Another is found on the east side of Little Yellow Creek Bay. Across the bay is a third launch, near the state park's boat rental concession. This is in a day-use area. The status of this ramp may be questionable during the late fall, when many of the park's services are closed for the season.

A fourth launch is in the back of Grandpa's Cove, though this access is suitable only for cartopped craft.

More information on Yellow Creek State Park may be obtained by writing to the state park at RD 1, Box 145-D, Penn Run, PA 15765; phone: (412) 463-3850.—JK.



low Creek be included in the Big Bass Program. These regulations, which put a four-fish, 15-inch minimum size limit on bass, were placed on Yellow Creek Lake in 1991.

The walleye fishery has never developed at Yellow Creek Lake, despite alternate-year stocking by the Fish and Boat Commission. Lorson has implemented a program in which walleyes will be stocked every year in an attempt to establish this increasingly popular gamefish.

Bluegills are by far the most abundant panfish species in Yellow Creek, and the yellow perch seem to attract nearly as much angler attention. Perch grow to impressive sizes, as was revealed in the 1989 survey, with fish up to 13 inches showing up in nets and during electrofishing. Fall fishing often produces these magnum-sized perch.

The abundance and variety of forage species has also improved since the Fish and Boat Commission's 1980 survey. Lorson's 1989 study found many shiners and minnows, along with larger prey—white suckers and chubsuckers—which are the preferred forage for larger predators like pike, muskies and big walleyes.

Physical characteristics

Yellow Creek Lake covers 720 surface acres and reaches depths of about 35 feet near the dam. Three main tributaries feed the lake—Yellow Creek, Little Yellow Creek and Laurel Run. All are approved trout waters. This state park lake is limited to 10hp outboards.

For the most part, the main channel, the inundated Yellow Creek channel, hugs the north shore of the lake. The shoreline is characterized by sharp-breaking bluff banks. Rock and shale ledges drop quickly into 20 to 25 feet of water.

Much wooden fish-attracting structure has been added to this area of the lake. The work was done by the Allegheny Mountain Bass Anglers, in conjunction with the Fish and Boat Commission's Adopt-a-Stream Program. The cover exists in the form of shoreline-connected trees and submerged brushpiles and wooden cribs. Three submerged bridges (or the remnants of bridges) can be found over the old Yellow Creek channel.

The northern portion of the lake provides much of the smallmouth bass habitat, and holds its share of largemouth bass during the cold-water period.

The southern side of the lake features a more gently breaking lake bottom. Three large bays—Little Yellow, Grandma and Grandpa—furnish shallow-water habitat and largemouth bass spawning areas.

The lake's southern side also has extensive flats. Most of the limited amount of aquatic vegetation in Yellow Creek Lake is located in the southern section. This includes milfoil, bullrush, water lilies and cattails.

The extreme lower end of the lake takes on a different character, as it necks down considerably the final mile or so above the dam. Steep breaks characterize both shorelines. A few coves also have steep-breaking dropoffs.

Fall fishing tactics

Summertime bass on Yellow Creek take up residence in many of the lake niches. Thick, shallow-water vegetation holds its share of largemouths, and deeper cover also plays host to both largemouth and smallmouth bass.

In the fall the lake turns over and the aquatic vegetation dies. When this occurs most of the bass migrate into deeper water, such as the main and secondary creek channels. The best time to catch these fish is when they rise up out of the deeper channels to feed.

Look for shallow flats, feeding shelves, close to this deeper water. When the bass move up to feed, they use these flats.

The old standby jig-and-pig is a terrific offering for Yellow Creek's lunker largemouth. It portrays an important forage species, the crayfish, and it seems to be particularly effective in the cold water.

Living rubber jigs, like those made by Stanley, Arkie and Bull Dog, work very well. Brown should be the dominant color, with a bit of orange mixed in. Brown pork trailers, such as the Uncle Josh pork frog in either the no. 1 or no. 11 size, should be added to the jig. It may help to trim some fat off the port chunk because this increases the amount of hook gap and raises the percentage of hooked fish.

Crankbaits trigger cold-water bass when the fish are active, and you can cover water much quicker with them than with a jig. Fat baits that attain their action at slow retrieves work best. Examples include the Fat Rap and Bagleys DB3.

One last note on active bass: Even in cold water—water down into the 40s—the fish go shallow when actively feeding. I've caught them in water as thin as two feet. And even though they can be shallow, deep water is close by.

Active, shallow bass are a joy, but the truth is that the fish are deep most of the time during this period. I start my search for deep bass near the shallow flats they feed on. For instance, the base of a drop-off adjacent to a productive feeding flat.

The jig-and-pig still produces when fished

in this water, which runs 15 to 20 feet deep. Feel is important because many strikes are very light. When the wind blows hard, reducing your ability to tell what's going on, this is an unproductive way of fishing.

Another deep-water option is to jig a metal lure vertically like a blade bait or spoon. Examples of effective blade lures include the Heddon Sonar, Silver Lucky and Cicada. The Hopkins spoon is an old standby in the jiggling spoon category. You can also catch lunker-sized perch using this tactic.

These offerings should be worked at the base of dropoffs, down in the channels close to shallow water cover. Areas where the channels swing in tightly to such habitat, forming what is sometimes referred to as a "cut," seem especially productive. You can sometimes spot bass on a sonar unit in these channels.

Another option for catching inactive fish is to dig them out of shoreline-connected trees. Most of these trees drop directly into deep water, and many bass hold there. By working a snagless offering through the limbs, it's possible to trigger largemouths into striking. I've found the standard jig-and-pig to be best for this tactic.

Boat control is critical, and presentations should be made parallel to the limbs to reduce snags. Obviously, bass caught in this cover must quickly be wrestled out, so the gear used should be adequate for the task. Use heavy spinning or casting tackle with a line test of at least 14 pounds.

When you find cold-water bass, you usually find concentrations of them. Thus, the fish are quite vulnerable. When they are active you often can catch a bunch of them.

Most folks who fish this cold-water period are experienced, skilled anglers. They are the "10 percent of the fishermen who catch 90 percent of the fish." Fortunately, their knowledge also provides them with the realization of how important it is to release these fish.

Lunker largemouth bass, like most big ones, are female fish. They represent the lifeblood of the fishery. These fish must be released, not only to enable them the chance to provide further angling thrills, but to ensure a fishery made up of quality bass in the future.



The author thanks Area 8 Fisheries Manager Rick Lorson, and former Indiana County (now Franklin/Fulton counties) WCO Jan Caveney, for their assistance with this article.

The Renegade



*by Chauncy K. Lively
photos by the author*

I think it's safe to say that more fly fishers tie their own flies today than ever before. The reasons are many, but for starters, the cash outlay is a fraction of the cost of store-bought flies. And fly tying is fun—a rewarding hobby that expands one's interest in angling to all 12 months of the year. Yet, despite the easy access to instruction now available, there are many who think they are too heavy-handed for such fine work. Not so. I have watched people with short, stubby fingers tie tiny flies with a delicate touch one would expect from the hands of a surgeon.

This month we are tying a Renegade, a dry fly of western origin that is finding its way to eastern waters with increasing frequency. It is one of the most easily dressed dry flies, wearing only a tag, two hackles and a body. There are no wings, tails or other appendages to fuss with. In fact, it is so easily tied, I'm hoping that if you have never tried your hand at fly tying, you'll borrow a vise, hackle pliers and scissors from a buddy—along with a few basic materials—and find out for yourself. Just follow the



2 For a tag, grasp the free end of the Flashabou and wrap three overlapping turns to the left at the top of the bend. Then reverse direction and wrap three turns over the first layer, ending at the hanging thread. Hold the end of the Flashabou taut as you tie it off with three firm wraps of thread. Trim the excess Flashabou and apply a thin coat of lacquer to the tag.

From a brown rooster cape, select a hackle feather with barbules (the fibers extending outward from both sides of the rib) as long as 1 1/2 times the hook's gape. (The gape is the space between the point and the shank.) Then extract the hackle you chose from the cape and strip away the webby barbules at the butt end. This leaves the stiffer barbules to support the fly on the water. Hold the hackle at a right angle to the shank, on edge and with its dull side facing the bend. Bind the stem to the shank with several firm criss-cross turns of thread. Then bend the stem toward the eye alongside the shank and bind it down with three turns. Let the thread hang.

3 Clamp the hackle pliers to the tip of the hackle with the jaws pointing down the stem. (Never grip a hackle crosswise.) Wind the hackle clockwise around the shank in close turns, taking care to avoid binding down the barbules already wound. End the last turn with the pliers above the shank. Keeping a light tension on the hackle, hold in this position while you tie off the hackle tip with four turns. Trim the excess hackle tip. Let the thread hang.

4 Select four peacock herls and tie them in together by their tips next to the wound hackle. For durability, make



a "rope" of the herl by holding the herls together and winding the thread around them in spaced turns for about four inches.

5 Hold the thread and herls together and wind the "rope" forward to about 1/8-inch from the eye. Assess the body you've wound, and if you'd like it fuller, simply wind the "rope" back and

instructions and refer to the photographs for the various stages of dressing.

Best of all, take your new flies to your favorite stream and give them a real workout. The trout you catch take on a new meaning and you'll find you've added a new dimension to your fly fishing.

One final suggestion: After finishing each fly—or better still, before you clamp a new hook in the vise—squeeze down the barb with smooth-jawed pliers and sharpen the point with a hard Arkansas stone. You'll find that the hook's penetration improves and you're able to release fish with minimal damage.

ANGLER

The Renegade

Hook: Size 12, regular shank, regular wire.

(As you become more experienced, you'll find sizes down to 20 useful, too.)

Thread: 6/0 black, prewaxed.

Tag: One strand, gold Flashabou.

Hackles: One each, brown and white or cream.

Body: Four peacock herls.



1 Clamp the hook in the vise. Holding the end of the thread in your left hand and the bobbin in the right, lay the thread over the hook shank about 1/8-inch behind the eye. Holding the end of the thread taut, wrap the thread around the shank and over the short end of the thread for four turns toward the bend. Release the end of the thread and let the bobbin hang under the hook. Trim off the free end of the thread. Select a single four-inch strand of gold Flashabou and hold it alongside the shank with one end extending over the eye. Bind the strand to the shank and continue wrapping over the Flashabou and shank until you reach the bend. Let the bobbin hang.



forth over itself until you are satisfied with its density. Then separate the thread from the herl at the fore end of the body and tie off the herl with three turns. Trim the excess herl and let the thread hang.

Prepare a white or cream hackle as you did in step 2. At the front end of the body, affix the hackle with its dull side facing the eye.



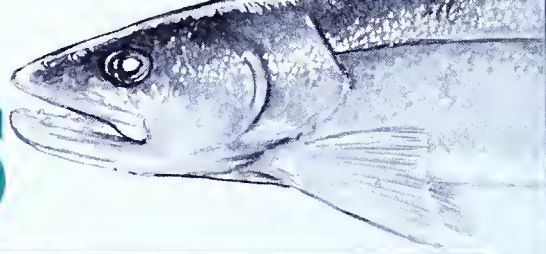
6 Wind the hackle as in step 3. Tie it off and trim the excess hackle tip. You should now have just enough space behind the eye to wind a neat head with the thread. If you have access to a whip-finishing tool, follow its instructions for the smoothest, most durable finish possible. Lacking the tool, finish off the head with four half-hitches,



drawing each tightly. Then cut the thread close to the head. Finally, with a needle apply a drop of head lacquer to the head.

Now remove your fly from the vise and examine it critically. If it bears a resemblance to the finished fly, congratulate yourself. It was a lot easier than you expected, wasn't it? While you're on a roll, clamp another hook in the vise and repeat the process. You'll find that each new fly will be an improvement over the last.

The Saugers



of Southwest Pennsylvania

by Mike Christopher

Catching river sauger during the fall and winter is much like giving hockey pro Mario Lemieux a penalty shot. Chances are quite good you are going to score, and the three major rivers of western Pennsylvania—the Allegheny, Monongahela and the Ohio—furnish some of the country's best spots to do so.

Saugers began to reappear about 15 years ago, after a lengthy absence from Pennsylvania waters because of water quality problems. Major reductions in industry, advancements in many municipal waste-water treatment facilities, and a lessening of acid mine drainage have led to an improved aquatic environment on the three rivers. The resurgence of the sauger fishery is one indication of this rebounding.

Sauger or walleye?

Saugers are members of the perch family, and they closely resemble walleyes. They don't attain the size of walleyes, but they do grow fast. Fish attain the minimum 12-inch "harvestable" size quickly if adequate forage is available.

A river fish by nature, saugers seem to thrive particularly well in navigable river systems. The turbid water found in such waterways provides a perfect environment for the light-sensitive saugers.

Saugers differ from walleyes by their more mottled appearance. Dark blotches extend along the sides of the fish, though their prominence depends on the color of the water from which the saugers were taken. In cloudy or muddy water, these markings are less visible. Larger saugers—fish over 15 inches—tend to have more distinct markings. Saugers also have a less prominent white tail tip than walleyes.

The most dependable way to distinguish a sauger from a walleye is to examine the rear base of the spiny dorsal fin. A walleye has a large, black blotch filling in the base of this translucent fin. A sauger has no such blotch.

The current state record sauger is a three-pound, 15-ounce Allegheny River specimen caught in 1987 by Thomas Steiger. Rumors circulated last season of big saugers, ones in the four-to five-pound range, but these fish stories were never documented. Because saugers do commonly reach this size in other areas of their range, it seems likely that the Pennsylvania record could be broken in the near future.

According to Commission Area Fisheries Manager Rick Lorson, the present range of saugers continues to expand, and numbers are increasing in river areas where the species is well-established. However, the size of the year-to-year population depends on factors other than just water quality.

Natural reproduction completely sustains the sauger population, and river environments can be harsh. High water during the springtime can wipe out entire year classes of fish, and this frequently occurs on all rivers. The high number of saugers presently in the rivers is a result of the stable spring conditions we've had in recent years.

Hotspots

All three rivers currently provide outstanding sauger fishing. The main focus of this action occurs downriver of the many lock and dam systems found within the 200 miles of navigable water flowing through Pennsylvania.

Formed in downtown Pittsburgh by the merger of the Allegheny and Monongahela, the Ohio River furnishes 40 miles of sauger fishing before leaving the state near East Liverpool, Ohio. Three navigational lock and dam structures are found within this stretch of river.

The Emsworth Dam is located about six miles downriver of Pittsburgh. The Dashields Dam is found about seven miles below Emsworth, near the town of Sewickley. The Montgomery Dam is located about eight miles above the state line.

The Dashields Dam is the focal point of activity on the Ohio River. Many saugers are taken within the first mile or so downstream of the dam. The "back channel" of Neville Island, downriver of the Emsworth dam, is another hotspot.

More than 90 miles of the Monongahela River flow through the Commonwealth, from Pittsburgh to Point Marion, a river section that includes six navigational dams. The Point Marion Dam is near Point Marion, just within the state's boundary. Lock and Dam 7 are near Greensboro, and the Maxwell Dam is a few miles upriver of Brownsville. Lock and Dam 4 are located near Charleroi, Lock and Dam 3 are at Elizabeth, and Lock and Dam 2 are at North Braddock.

Lock and Dam 4, and the Maxwell Dam, are prominent hotspots on the Mon.

During the past few years, saugers have been plentiful in the Allegheny River from Pittsburgh to Clinton, a distance of about 36 miles. Above Lock and Dam 6 (Clinton), saugers were less numerous and walleyes were more plentiful. Last season, many more saugers infiltrated the river above Dam 6, and catching them became common.

Just how far up the river the species will extend is unknown. The river becomes quite clear above the Kittanning area, and it may not be as suitable there for saugers. The navigable section of the Allegheny ends near East Brady, some 72 miles from Pittsburgh.

Eight locks and dams are on the Allegheny. The first six provide the best sauger fishing. The Highland Park Dam is in Pittsburgh, about seven miles above The Point. Lock and Dam 3 are located just upriver of Harmarville, and Lock and Dam 4 are at Natrona. Lock and Dam 5 are upriver of Freeport, and Lock and Dam 6 are in Clinton. Lock and Dam 7 are at Kittanning. Dams 8 and 9 are at Mosgrove and Rimer, respectively, but they don't have the concentrations of saugers typical of the other areas.

Why they concentrate

Saugers concentrate below dams because they find abundant forage there and the water holds plenty of oxygen, thanks to the effects of the dam. Many fish also begin upstream spawning



photos: Mike Christopher

migrations in the fall, even though the actual process doesn't happen until spring. The dams block this movement, so saugers gather in these areas.

Current breaks

Finding the exact locations of saugers during this cold-water period means locating areas of calm water. Near the tailrace this calls for fishing below the lock. The lock creates a current break off the main flow of the river, and all gamefish move into this zone to escape the strong current.

Both shore anglers and boat fishermen can capitalize on the movement of the gamefish. The current-breaking effect of the lock often extends quite some distance downriver. Shore anglers can reach fish from the bank, and boat anglers fare well by drifting slowly along this zone while fishing vertically.

The tailrace areas are the most popular fishing locations, but they are by no means the only ones. Larger tributaries attract saugers. These spots include the Beaver River on the Ohio, Buffalo Creek on the Allegheny, and Ten Mile Creek on the Mon. Throughout the day, fish scatter in the mouth of the feeder water and out into the main river itself. If the main river current is high, more fish move into the protection of the creek mouth.

In the twilight period, saugers usually migrate into the shallow zone of the feeder water, and they are aggressive biters.

Small tributaries wash sand and gravel bars out into the river. Buoys mark the larger bars. These are also great spots, and they produce well just before dark.

No refined tactics needed

It doesn't take refined tactics to dupe river saugers. Shore anglers do well with bait rigs—either slip rigs or splitshot rigs—baited with small shiners. Another good shore option is a slip-bobber rig.

Boat anglers can take a more active approach either by casting or drifting. Leadhead jigs tipped with fathead minnows are the bread-and-butter offering. On days when the fish are really biting you can go through a lot of minnows. My partners and I have gone through more than a pound in a day. When the saugers are on like this, plastic-tail jigs work well.

Two other productive options are blade baits like the Cicada, Silver Lucky or Sonar; and a jigging spoon like a Rocker Minnow or a Hopkins spoon.

The best sauger action runs from late November through mid-March, so now's the time to get in on the action.

ANGLER

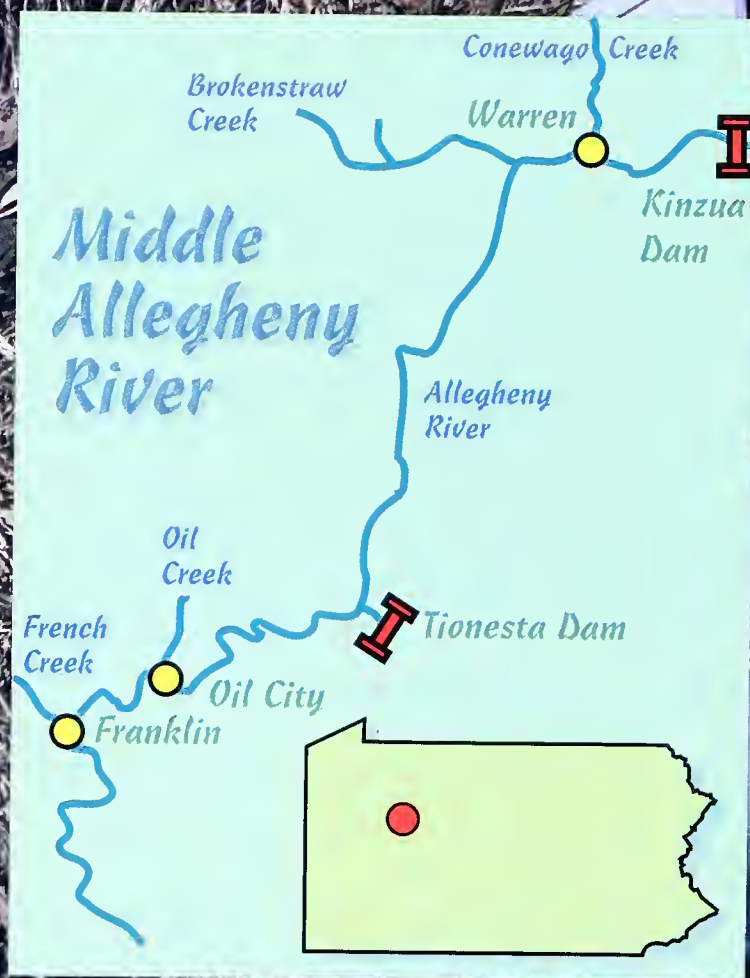
Three Rivers Access

The Pennsylvania Fish and Boat Commission has developed many public access areas on western Pennsylvania's three major rivers. These accesses are suitable for trailered boats.

● **Allegheny River.** Deer Creek (near Harmarville), Cowanshannock Creek, Tarentum, and Templeton (Game Commission).

● **Monongahela River.** McKeesport, Speers Landing, Rice's Landing, East Fredrickstown, and Point Marion

● **Ohio River.** Leetsdale and Rochester.—JK.



Autumn Slide in the Middle Allegheny

by Mike Bleech
photos by the author



The trees were bare, except for the hemlocks and white pines that provided contrast in the brown Allegheny River valley. Days had shortened. The low angle of the sun does not make for many warm days in November. Since the sun dropped below the hills, the air cooled quickly. My partner put on his new fingerless fishing gloves and zipped up his heavy jacket. Our eyes strained skyward, searching for the source of distant honking.

I'm a sucker for magical moments. So lost were my thoughts that if the walleye had not hooked itself, it would have gotten a meal, and I would not have.

"First walleye goes in the live well," I said to Bill.

The walleye thumped about in the livewell until we pumped enough water in to calm it down. I have never thought of myself as a superstitious man, but I am not above reading the signs. So many times when we release the first keeper-size fish, it is the last fish we catch on that outing.

"That ought to scare off any other walleyes in the area," Bill said with a sarcastic grin, not letting on that a walleye was right at that instant running with his bait. He still had that grin on his mug when he snapped back his rod to set the hook.

Trophy time

Just a typical night of November walleye fishing on the middle Allegheny—that stretch from the Kinzua Dam downriver to the head of slack water, near Interstate 80. It is peak fishing time, when everyone who is serious about river walleyes wants to be on the water. It is trophy time, when minds wander to thoughts of 10-pounders, and even 12-pounders. It is easy pickings, when even moderately skilled anglers can catch their share of walleyes merely by being in the right place at the right time.

During autumn, walleyes slide into their winter holding areas. While they are moving they are more vulnerable to anglers than at other times. They feed, but the abundant food of summer has been depleted greatly, so the walleyes are more anxious to gobble up baits and artificial lures.

"Mine looks to be a bit bigger than yours," Bill said as he dropped his first walleye of the night into his half of the live well.

Indeed his walleye was larger. Before putting it in the live well he checked its length on the measuring tape that graced the live well lid. His walleye stretched beyond 22 inches. Mine barely made 16 inches.

"Deep" pools

We had launched the boat at the Kinzua Dam tailwaters and motored downriver to one of our favorite pools. The outflow from Kinzua Dam has to be at least 4,000 cubic feet per second (cfs) to be able to motor back upriver to the tailwaters from pools below Dixon Island, and then only if you know how to read the river. Fortunately, the outflow is often on the high side at this time of the year. Summer outflow is generally less than 2,000 cfs.

Our fishing hole was at the bottom end of a large island, where the two channels that surrounded the island riffled into a relatively deep pool. "Deep" in this part of the Allegheny means anything more than six feet. As far downriver as Trunkleyville, the deepest natural pools are not much more than 10 feet deep. However, there are several dredged pools that are much deeper.

We anchored the boat into position, bow into the current, an hour before dark. As usual, we did not have any action until an hour after nightfall. There are daytime holes, evening holes, morning holes and nighttime holes. This particular place has always been a nighttime hole, at least for us.

We have never been able to come up with a reasonable explanation for the timing in the holes. The only thing I can say about it is that if something works, don't try to fix it. The timing in our favorite November walleye fishing holes has been consistently predictable.

Bait

We used live minnows for bait, hooked through the lips with fine-wire hooks, using a few medium-size splitshot for weight. We felt lucky to have some lively four-inch to six-inch common shiners. These are a native fish, and walleyes love them. Emerald shiners are the most popular bait minnow at the local bait shops. Spottail shiners, chubs, suckers and stonerollers are also excellent baits. Nightcrawlers and leeches are not as popular among the local walleye anglers as they would be during summer.

We took home dinner that evening, and released enough walleyes to have made limit catches if we had so desired.

The abundance of walleyes in the middle Allegheny is largely a result of stocking procedures. According to Commission Area Fisheries Manager (AFM) Ron Lee, natural spawning success has been limited. The eggs are lost if the river flow is either rising or falling significantly during and immediately after the spawn. That usually seems to be the case. The river has been stocked for about the previous 10 years.

One aspect about November walleye fishing that puzzles me is that the average size of the walleyes is a few inches larger than the walleyes we catch from the same water during spring and summer. During fall and winter most of the walleyes we catch here, 90 percent at least, are less than 15 inches long. But during November that is reversed. Most of the walleyes we catch are longer than 15 inches.

The average size varies from year to year. In the best years it has been 18 inches to 22 inches. Some years it has been 16 inches to 18 inches.

"In the fall, fish go on a feeding binge," explains AFM Lee. "That is probably a period of maximum growth."

That could be an explanation for the better size during fall, but if it is, why do the walleyes get smaller again the following spring? I leave questions of that nature in the hands of the experts. My quest is catching walleyes.

Hotspots

Walleyes are on the move during mid-autumn. They tend to congregate in certain areas, often the same areas where they spend the winter. In some cases these places are where walleyes can be caught during most of the walleye fishing season. In some cases these places are where walleyes are absent through the rest of the year.

Walleyes move into the major river tributaries during fall periods of high water flow. They congregate in certain deeper pools, and if conditions are favorable they stay there until moving into spawning areas during early spring. However, they do not move into these areas every year. They generally do not move when the water flow is low. Even when the water level appears suitable they do not always move into the tributaries. But when they do, the fishing can be superb!

At the risk of offending some of my neighborhood walleye fishing chums who might consider some of these spots their secret fishing holes, here are some of the better November walleye holes in the middle Allegheny River, and in some of the major tributaries:

● **Kinzua Dam tailwaters.** The Kinzua Dam stops all upstream movement of walleyes and other fish. Thus, walleyes congregate in the tailwaters during November. Furthermore, while the reservoir is drawn down for winter, more fish than usual are swept through the gates of the dam, providing hungry walleyes with abundant food.

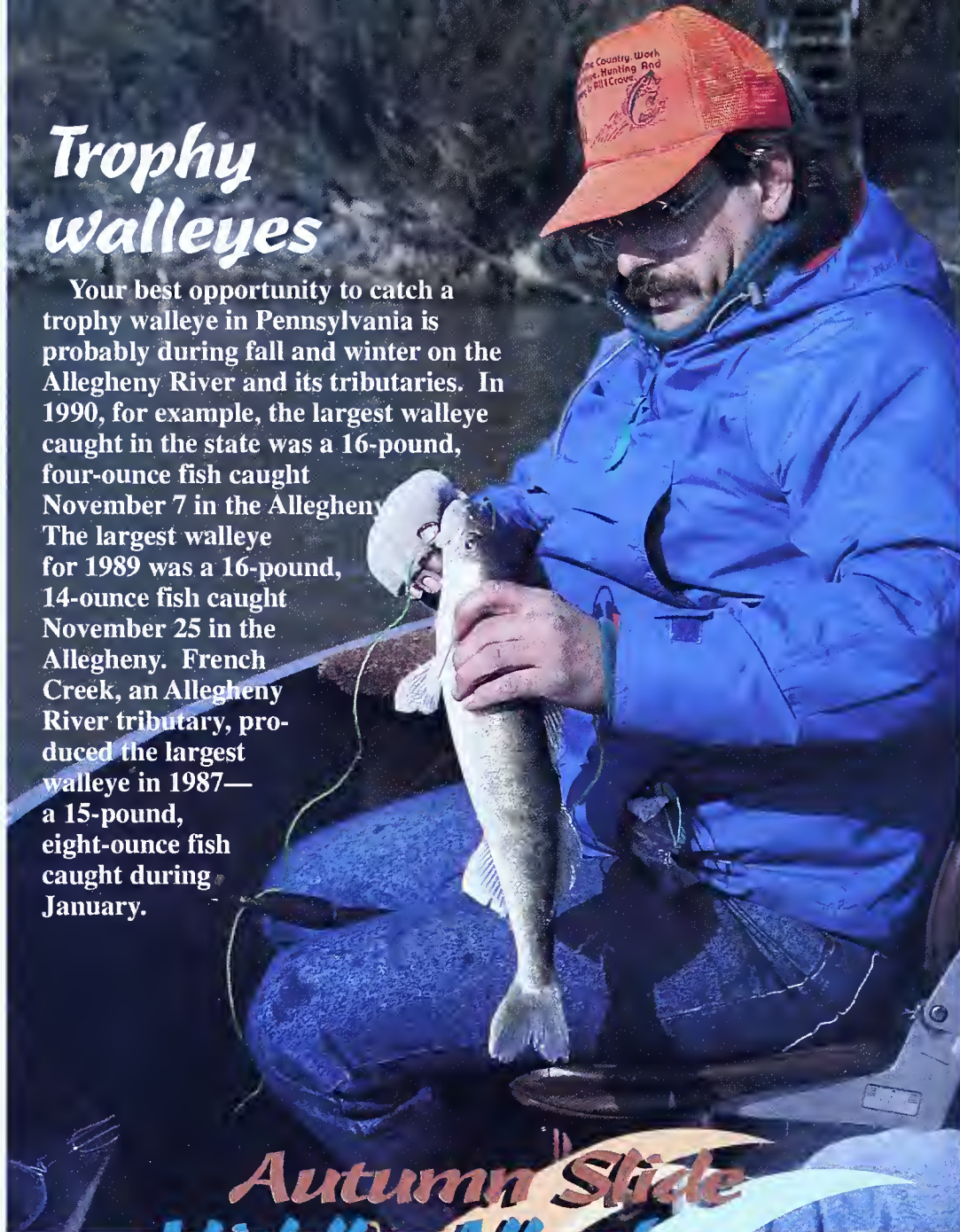
The tailwaters of the dam extend from the dam to the head of Dixon Island, about 3/4-mile downstream. Walleyes might be just about anywhere in this area, largely depending on the outflow from the dam. Fishing from the walls on either side of the outflow can be productive when the outflow is about 2,000 cfs or less. Calmer pockets on either side of the rushing outflow farther down can be excellent when the outflow is greater.

The stretch on the hatchery side below the "No Boats" signs is popular for night fishing, as is the stretch below the boat launch on the Route 59 side when the outflow is 6,000 cfs and greater.

● **The Point in Warren.** The Point, in the city of Warren, forms where Conewango Creek flows into the Allegheny. Many years ago a dredging operation created a deep hole here, on the upriver side of the point. There is good fishing from both shores, but the best way to fish this area is from a boat.

Trophy walleyes

Your best opportunity to catch a trophy walleye in Pennsylvania is probably during fall and winter on the Allegheny River and its tributaries. In 1990, for example, the largest walleye caught in the state was a 16-pound, four-ounce fish caught November 7 in the Allegheny. The largest walleye for 1989 was a 16-pound, 14-ounce fish caught November 25 in the Allegheny. French Creek, an Allegheny River tributary, produced the largest walleye in 1987—a 15-pound, eight-ounce fish caught during January.



Autumn Slide Middle Allegheny



Concentrate on the area from the railroad bridge to the point.

● **Tionesta.** Dredging has created a huge hole at the town of Tionesta. Drift from the riffle at the upper side of town to the head of an island at the lower side of town. Bank fishing is generally best from the Tionesta shoreline.

● **Tionesta Creek.** Walleyes can move a short way into Tionesta Creek, which meets the river in the town of Tionesta, up to the Tionesta Dam. The dam stops upstream movement, thus concentrating walleyes.

● **Conewango Creek.** Not regarded as a walleye producer, this large creek secretly has given up many big walleyes. One of the best places to look for fall walleyes is below the low-head dam in the city of Warren. When the river flow is high enough, it is possible to launch a boat at the point, where the creek meets the river, and motor carefully upstream close to small islands just below the dam. Fishing from the dam is popular, but dangerous.

● **Brokenstraw Creek.** The Brokenstraw is mainly thought of as a trout creek. You don't encounter many walleye anglers here. This spot gets deep into the guarded secrets category. Several of the deeper pools between Pittsfield, where the Little Brokenstraw meets the main branch, and the mouth of the creek, at the Buckaloons, hold walleyes during November. One of the better pools is right at the mouth of the Little Brokenstraw. A few more good spots are on either side of the village of Irvine.

● **French Creek.** French Creek flows from the southwest corner of New York, through Erie and Crawford counties, and into the Allegheny River at Franklin. It holds some walleyes year-round at least as far upstream as Erie County. The best time for big walleyes is during fall, when the big females move in from the river. One of the better pools is at the mouth of Cussewago Creek, at Meadville.

Tackle and rigs

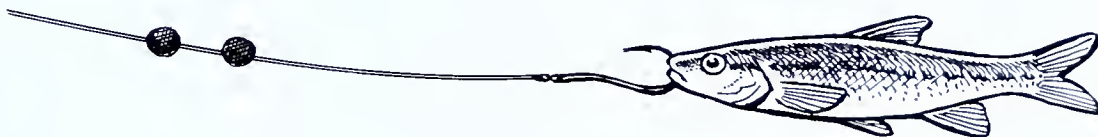
The standing fishing outfit among middle Allegheny walleye anglers is a medium spinning rod and reel, using eight-pound-test line. Sensitivity is important, so most anglers use graphite rods. Anglers who fish mostly from boats prefer rods that are six feet to 6 1/2 feet long. Anglers who fish mostly from shore often go for longer rods that are seven feet to nine feet long. Those long rods are used by many anglers in the Warren area.

Keep it simple, keep it clean. This is sound advice for river and creek fishing during November. Your hands might be cold. You

should often fish in the darkness. Both factors make rigging difficult. Snags are frequent problems, because you should be scraping bottom in rocky, sometimes log-strewn water. So you might be rigging often.

Here are a few of the better terminal rigs for November walleye fishing:

● **Jig and minnow.** Hook the minnow firmly through both lips. Some successful walleye anglers think that the minnow struggles more, or it looks more appealing if it is hooked so that it rides upside-down. The lead head can be plain or dressed. Heads dressed with either bucktail or soft plastic bodies have the added appeal of color.



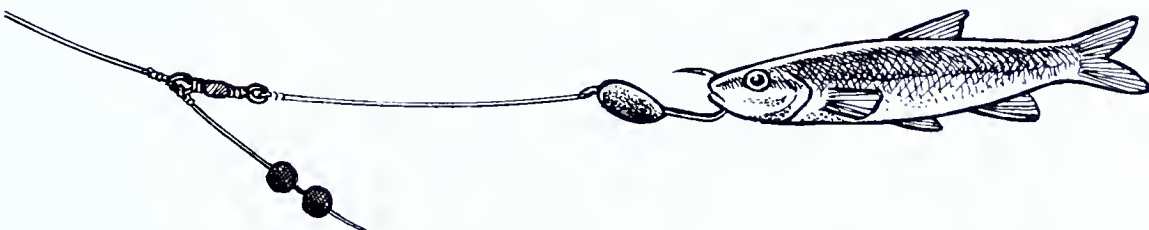
● **Fine-wire hook and splitshot.** My favorite hook for this rig is an Eagle Claw No. 42, size 6 or 4 depending on the size of the bait minnows. The splitshot should be just large enough to keep the bait at the bottom, but not heavy enough to anchor it there.



● **Baited jigging spoon.** This rig is productive for slow drifting in the larger river pools, or for vertical jigging over a concentration of walleyes in deep water. Do not jig it hard at this time of year. Just wiggle it and pause for a few seconds between wiggles. I have found that half-ounce spoons are about the right size for most river fishing in November.



● **Drop-weight rig.** This rig is designed to drift the bait anywhere from a few inches to a few feet, or more, above the bottom. It is used primarily over a snag-infested bottom, because another feature of this rig is that usually just the drop weight snags. It is rigged on lighter leader, so only the leader and weight break away. Any type of bait floater or floating jig head can be used. Vary the distance between the weight and the bait to vary the distance between bait and bottom.



ANGLER

KEN REINARD, A PROPER GENTLEMAN

BY CARL W. MCCARDELL

KEN REINARD, of Ephrata, has become a "proper gentleman" in his portrayal of a 1770s fly fisherman. Four years of extensive research have helped him blend a love of colonial history and fly fishing.



*KEN REINARD, WHO PORTRAYS A
1770S FLY FISHERMAN, BASES HIS
METHODS AND HAND-MADE
EQUIPMENT, EVEN HIS CLOTHING,
ON EXTENSIVE RESEARCH.*

Ken joined the German Regiment of Lancaster County eight years ago—he enjoys learning about his favorite period of history. The group's purpose has always been to emulate colonial life of the eighteenth century, just before America's hostilities with the British crown.

"It was a time when the people were starting to become upset with increasingly higher taxes," Ken says. "A part of our re-enactment is to 'make sport' of the British."

One day as the German Regiment was in the middle of one of its gatherings, Ken Reinard asked himself, "I wonder what it would have been like to have fly fished back then?"

He was well-acquainted with the modern techniques of his cherished sport, but to go back in time would require great imagination. "It took a while, but I discovered copies of some books written by Izaak Walton and Charles Cotton, who were well-known fly fishermen of their day," Ken says. "These books were written for the gentry, or upper class. They told how to be a 'proper gentleman' while enjoying the sport in a certain way."

"For instance," he says, "it was proper to cast only to rising fish. The sun had to be before you and the wind had to be at your back. Fishing was to be relaxing—a time for fishing with a friend or reading the Scriptures."

Ken discovered that Walton and Cotton were trend-setters and that it would have been best not to fish at all rather than do it any other way. Walton's book, unlike Cotton's, was fiction. It spoke of two characters who showed the proper methods of fishing while they were on their outings. Their names were Piscator and Viator.

The former character was the teacher and the latter was the student. "The character I often portray is Piscator," Ken says. "I needed a pupil, so I found my friend Gary Myers to be a willing student and trusted friend."

"In those days you did not share your skills with just anyone," Ken says. "You had to get to know someone well and he had to 'prove' himself to be 'honest.'"

Gary has proven himself to be honest in both his character, Viator, and in real life. "Gary wants to learn more about how I make the equipment for fly fishing," Ken says proudly of his student. "I'll be teaching him how to tie flies, make line out of horse hair and construct rods this year."

Another source of information has been a book that even Walton and Cotton used. It was a publication written in 1496 by Dame Juliana Berners. "From what I have learned, it was the first book on angling that explains how to make proper rods, line and hooks."

Ken found some copies of this reproduced book not far from home in a library. After careful study, he decided to make most of his equipment just as the book describes. Ken has even found some tools of that time to fashion his equipment accurately.

"I had one man tell me that I couldn't tie flies without a vise

and have them look like the way they would have in the 1770s," he says with a laugh. "So while we chatted I made one for him. He was shocked."

According to Ken, hooks were actually made of high-carbon steel needles. "When I make mine, I do them the same way. I want them to be as realistic as possible."

When it comes to making line, Ken goes by the book. The best comes from Arabian horse hair. The color that is most popular is white, or "glass," and must come from a male horse."

One leader Ken showed me took him nearly eight hours to complete. When asked why he didn't compromise and buy the line, he said with a smile, "Why, that's not what a proper gentleman would do!"

Izaak Walton's characters used various kinds of bait, and Charles Cotton advocated the use of flies only. In fact, he had nearly 65 different patterns from which to choose. Most were used only at certain times of the year.

Ken's set of flies matches perfectly the artist's renditions of that period. "It was only proper to use certain flies during a particular part of each month," he says.

If there is any place where Ken Reinard has "cheated," it has been in the construction of his fishing rods. "Some of the rods of the 1770s were 12, 15 and even 20 feet long," he says. "I don't have a vehicle capable of hauling such equipment, so I made mine in two pieces." They are constructed with the same material, however, usually made from cane, bamboo or willow. When the pieces are together, it is difficult to see that the rod is actually a two-piece.

Recently the German Regiment took part in a re-enactment in Colonial Williamsburg known as "Publick Times." The regiment was there as part of the "militia," or non-uniformed but armed general citizenry. British soldiers were there as well. All was peaceful because these re-enactments mirrored pre-war days.

The only conflict came from Ken Reinard's character, who pretended to poach fish from the governor's pond. "It was hard for me even to pretend to poach fish because I have never done such a thing," Ken says with a laugh. "When I was caught, I was taken to the governor. I found out later he's the man who also runs Williamsburg in real life."

Ken's dialogue with the governor gave him center stage with the crowd attending that day. He was later complimented for his knowledge of the period and for the information he gave about fly fishing in that era.

If Ken's hair were longer, a quick glance at him would immediately remind people of Ben Franklin. His fancy, ornate clothes from head to toe have been researched for proper color, material and style. Even his "buckle" shoes can be worn on either foot.

Most of Ken's actual fishing with 1770s equipment has been just for fun without too many expectations. He does, however, catch fish. In fact, this season Ken fished often in Lancaster County, even though the region does not have native trout as did Izaak Walton's England.

"One of the biggest problems with using my gear is to find a stream where you can actually cast. They are generally too brushy," he says.

Along with his trusted friend, Gary Myers, the pair got some second glances from the other anglers. The only aspect distinguishing them from people out of the past was their Pennsylvania fishing licenses.



So what does a fellow with such an interesting hobby do for a living? He's a salesman at a tackle shop in Ephrata. "I'm a dealer, so I meet some really knowledgeable and helpful people," Ken says. "I can often get some help from customers who find out about my hobby of colonial fishing."

Before working at the Ephrata store, Ken was involved with another tackle shop. "With all the years of experience in this business and fly fishing, I've been able to have a lot of fun," he says.

In addition, there has been one very important character trait Ken has gained from donning his antique-looking clothing and paraphernalia. "I've enjoyed fishing with modern equipment," Ken says. "But using this antique equipment has shown me the difficulty people had fishing in the late 1700s. It has definitely made me a more patient fisherman."

Ken was recently asked by some members of the German Regiment to learn some techniques of early 1800s fishing, but he's rejected that notion. "I have so much more to learn about my particular era. I just recently learned how to make hooks in the proper fashion."

Ken Reinard has appeared at Daniel Boone's Homestead, Trout Unlimited gatherings, Federation of Fly Fishermen's clubs and at The Garden State Convention Center in New Jersey. He also demonstrated his art at the Williamsburg, Virginia "Publick Times" last Labor Day.

Some of Ken's family and friends think he's a little strange at times, but most accept his hobby as a legitimate craft. His father is a blacksmith, so Ken has found him to be a source of help when working on many projects.

Ken doesn't know where else his hobby will take him. For now, his goals are to become more proficient in his recreations and to continue enjoying learning about his forefathers.



TRIBS of STEEL

by Darl Black

Pennsylvania's 40-mile connection with Lake Erie offers outstanding fishing for a variety of species, including the only Keystone State opportunity for anglers to tangle with the spectacular aerialist known as the steelhead. Fishermen who encounter this hard-fighting, lightning-fast jumper claim there is no rival.

During the summer, anglers with specially equipped deepwater boats troll to take steelhead from the offshore waters of Lake Erie. But during the late fall, winter and early spring, the steelhead are in the tributary streams. This is steelhead time along the North Coast.

Perhaps because of its migratory nature of here-today-gone-tomorrow, perhaps because of its wild behavior when hooked, or perhaps because it is simply a foreigner, the steelhead has acquired a reputation as an exceptionally difficult fish to catch. However, according to some local experts, there is as much misinformation as there is accurate information floating around about stream steelhead fishing.

To help take the mystery out of steelhead fishing, I talked with one of the eminent steelie fishermen—Dr. Chester Wolford. A professor at the Behrend Campus of Penn State in Erie County, Wolford lives in the heart of Pennsylvania steelhead country. During the prime stream season, if Dr. Wolford is not teaching or researching, he fishes for steelhead.

My first question to Dr. Wolford was simple. "What is the hottest period for stream steelhead?"

"Steelhead may be found in the tributary streams from November to May," says Wolford. "The best time used to be in the spring, around March. But now it seems that more fish come in during the fall right after the salmon. As the salmon run falls off, to the extent that anybody notices any-

more, the steelhead come into the streams until ice-over. If it never ices over, the steelhead remain. This past year the peak steelhead fishing occurred during the same weeks as deer season.

"That reminds me of a good suggestion for anglers. When they come here to fish, always check the mouth of the stream. If it's iced over, there is probably no point in fishing because no new fish have been able to come upstream. Anglers arrive from down state, look at the beautiful flowing water in the stream, and can't understand why there are no fish. It's usually because the mouth is closed off with jammed ice."

His comment prompted my next question. "When I am talking to anglers on a stream, one person says, 'we were catching them like crazy when it was high and muddy,' and then another person says, 'it is still too high and tinted; it needs to be low and clear.' What water conditions are necessary for fish to move into the streams?"

"I think high water brings them in. But it's awfully tough to catch steelhead in high water. So my advice is to fish immediately after high water—as it is going down. But if it gets too low, the fish try to return to the lake."

"So let me understand this point," I said. "The best time for catching steelhead is a falling stream that has some tint to it, but not real clear?"

"Yes," says Wolford. "You don't want an absolutely clear stream. Low and clear translates into no fish in the stream."

Before I could ask my next question, Dr. Wolford followed up on another thought regarding moving fish.

"When the fish are moving upstream, you have to look for them everywhere. Too many people head to their favorite hole, plunk

their lines into the water, and stay there the whole day. If the fish are moving, you can find them anywhere—including tiny current breaks and pockets behind rocks in shallow riffles, or wash-out depressions in the shale bottom. Many anglers ignore these areas. That's a secret to success—don't fish just the holes.

"Steelhead are big fish and you can see them if you look for them. You can watch them move around. As a matter of fact, they are so dumb that you can see them and still catch them."

"Wait a minute! You are telling me it's not hard to catch steelhead?" For someone who has struck out more often on steelhead than any other species in Pennsylvania, this was disparaging news.

"I don't think it's hard," Wolford says. "In some ways they are precisely like inland trout. And in other ways they are precisely the opposite. With inland fly fishing, if you are close enough to see the fish lying in the water, that's it; the trout will be spooked. That's not true with steelhead. I see every steelhead before I catch it."

"Well, you must have some magic bait for these fish," I kidded. "What do you use?"

"Sometimes I use streamers, but most often I use a single hook, usually a stout size 6 or even a size 4 with a single salmon egg. My favorite hook is the Mustad 7970—there I go giving away another secret.

"The trouble with treble hooks is that the fish are so strong they can bend a treble and use it as a lever. With anything smaller than a size 6 single hook, the fish often straighten them out, too.

"By the way, those salmon eggs are ordinary store-bought eggs in the jar—nothing fancy. A friend tried to figure out how to cure single salmon eggs from natural salmon roe, but he could never quite get it right.



Lake Erie Steelies

The steelhead is the anadromous form of the rainbow trout. Native to the northwestern coast of North America, the western steelhead feeds in the north Pacific and returns to the freshwater rivers to spawn. Transplanted from the West to the Great Lakes, the steelhead adapted to the new environment apparently better than the salmon.

In Lake Erie the fish spends the summer and early fall feeding in the open waters of the big lake. Then sometime during the winter, mature trout return to the tributaries to prepare for an early spring spawn.

Unlike Pacific salmon, which die following the spawn, most adult steelhead survive. Steelies return to the lake to feed, grow and spawn again.

Before the introduction of West Coast steelhead to Lake Erie, stocked rainbow trout followed the lake-run pattern of returning to spawn in the tributaries. Natural reproduction was limited and the trout were not nearly as large as the steelhead.

With the true steelhead strain, the numbers of fish and the size increased dramatically. In stream steelhead average three to six pounds, with fish over 10 pounds taken, too.

Natural reproduction of steelhead in Pennsylvania streams is questionable. Stocking of fingerlings is necessary each year to maintain a desirable fishery. However, the steelhead stocked today are raised from eggs gathered from Great Lakes fish. The transfer of West Coast steelhead eggs has been terminated because of a disease problem.

Skamania, a summer-run steelhead, has been introduced experimentally into Lake Erie. This sub-species returns to the streams during the summer to feed. It is hoped Skamania steelhead will provide a fishery for shore anglers during the summer because the water flow in streams would not be sufficient for the fish to move upstream.—DB.

Bait, Lures, Tackle, Where to Fish

The majority of steelhead in the streams are taken on a modest list of baits and lures. Natural salmon eggs are among the most productive. Running a close second are nightcrawlers. Another effective presentation is a small, colorful, soft-plastic body on a jighead or live bait hook tipped with several maggots. Sometimes just a dab of colorful yarn and maggots are used. Bait presentations are often used with a bobber or small float to bounce the boat along with the current.

The preferred rods are long, flexible spinning outfits or fly rods. Seven-foot to 10-foot rods are common on the streams. Some anglers convert fly rods for use with spinning reels.

In addition to bait, anglers capture steelhead using spinners. Dedicated fly fishing anglers, under certain conditions, are successful with bright streamers or wet fly patterns. Other lures, including plugs and spoons, are ineffective.

Recently, artificial salmon eggs have come on strong. In particular, soft, biodegradable eggs that release scent as they soak up water have become very popular.

Most of Pennsylvania's Lake Erie tributaries are characterized by shallow flows with slate rock bottoms. Streambeds are not wide. Flows are low because of small drainage areas. Most anglers target only Twenty Mile, Walnut or Elk Creek. However, there are numerous other tribs that receive a winter steelhead run.

Don't overlook Conneaut Creek, the largest tributary. Although the mouth of Conneaut is in Ohio, the stream provides more fishable steelhead water in Pennsylvania than any other Pennsylvania trib.

Erie trib regulations are complicated. Be sure to check the *Summary of Fishing Regulations and Laws*.—DB.

So it's simply store-bought salmon eggs. Those artificial Jensen eggs are not bad, either.

"I have two fly rods; one is 8 1/2 feet and one is 7 1/2 feet. The streams on Lake Erie are such that even a 7-foot rod is plenty, and in some circumstances, the shorter rod is better than a longer rod. The streams are not wide, and there is no need to do a lot of casting.

"I use a 7-weight line, and I don't use a leader and tippet. Tell anglers to forget all that stuff! You spend all day changing leaders and tippets. I simply tie a length of monofilament long enough so that I can put the hook in the reel and the monofilament is not down the guides of the rod. That would be about 7 feet on a 7 1/2 foot rod."

"Hold on here!" I said, "You are telling me you use a fly rod but just tie a piece of ordinary straight monofilament on the end of the fly line? No tapered leader?"

"That is correct. There goes another secret. I just carry a spool of 10-pound mono. Steelhead are not as line shy as some would have you believe. If you go too light, you lose fish when they go tearing downstream. I occasionally drop down to 8-pound test, but I do not recommend you go any lighter—unless you have one of those noodle rods that can handle 4-pound test."

I was quick to ask, "How are you able to lay out a cast properly with straight monofilament?"

"Cast? No, I'm drifting the bait. I sort of flip-cast the egg out there. It's not a serious cast. Of course, it depends on the size of the water. At a big pool, if nobody is there, I might try to get a decent cast up to the head of the pool and bring it down. But normally you can stand on the bank of most Erie tributaries and flip the salmon egg the whole way across. Mostly what I do is drift and drift and drift and drift and drift until the fish hits it."

"What do you figure is the greatest number of drift casts you have made to a single fish?"

"Oh, probably more than 100 drifts for one fish."

"No wonder I can't catch these suckers!" I said. "I don't have the patience to drift an egg by one fish 20 times let alone 100 times."

"On occasion you can see the bite happen," he says. "The bait goes by them several times, and then the next time the fish just moves over, opens its mouth and closes it. You have a split second to set the hook.

"Steelhead bite in one of two ways. They either yank the rod out of your hand—in which case you know you've got one on—or they mouth the bait for an instant and



spit it out. It took me four years before I began to learn the difference between their tap and a bump on the bottom. And I still don't know for sure every time.

"Some may look at this idea as a silly thing, but I believe if you are uncertain whether the bump is a fish or the bottom, set the hook. That means you are going to put a lot of flies and hooks in the trees,

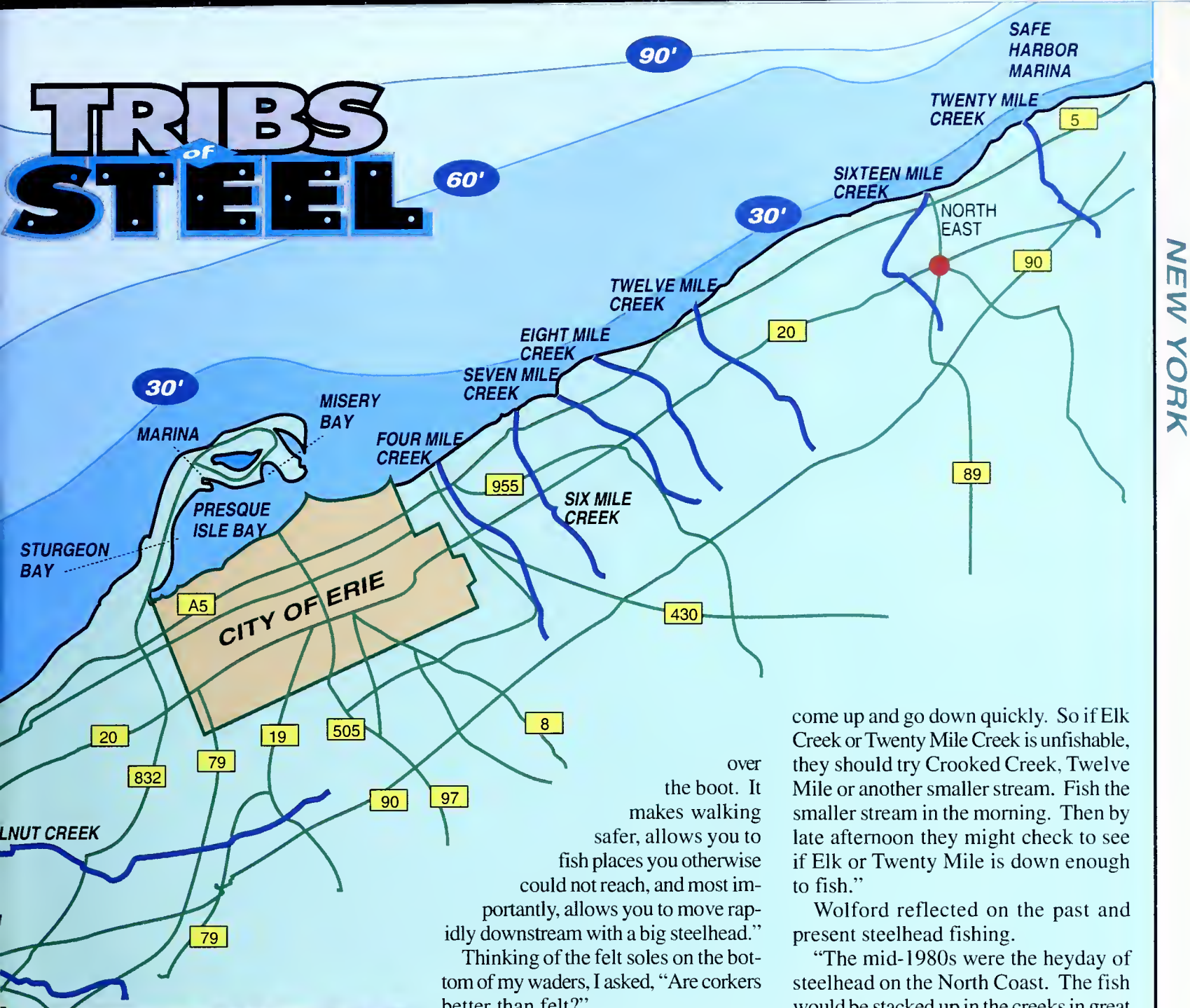
until you gradually get to the point where 85 percent of the time you are right—and begin hooking a lot more fish."

"What other tips do you have?"

"Being prepared for the weather is important. It may be fairly nice 40 miles inland, but near the Erie shore the wind off the lake can make the weather quite different. Dress warmly.

"Also, solid footing is important. I always advise people to wear West Coast corks, a sandal with steel cleats that fits

TRIBS of STEEL



NEW YORK

WALNUT CREEK

over the boot. It makes walking safer, allows you to fish places you otherwise could not reach, and most importantly, allows you to move rapidly downstream with a big steelhead."

Thinking of the felt soles on the bottom of my waders, I asked, "Are corkers better than felt?"

"I think felt soles are fine, but in the fall you have a lot of moss that felts don't help with. I've never used felt on ice, but I know corkers provide a positive grip on both ice and moss."

"I know you don't want to mention specific streams you fish, but what can you tell us about choosing a stream?"

"You have a way of prying every secret out of me, don't you? There are a lot of streams I fish that I don't see people on. A good tip is to include the smaller streams on your fishing itinerary—if they are open to fishing—not just the well-known tributaries."

"That's another thing out-of-towners should consider if they come up and find the big streams bank-full, roaring and unfishable. 'Gee,' they say, 'it stopped raining last night before midnight; I don't know why it's still so full.' They should realize that the larger streams come up slower and go down slower after a rain. The smaller streams

come up and go down quickly. So if Elk Creek or Twenty Mile Creek is unfishable, they should try Crooked Creek, Twelve Mile or another smaller stream. Fish the smaller stream in the morning. Then by late afternoon they might check to see if Elk or Twenty Mile is down enough to fish."

Wolford reflected on the past and present steelhead fishing.

"The mid-1980s were the heyday of steelhead on the North Coast. The fish would be stacked up in the creeks in great numbers and it was nothing to catch and release over a dozen fish a day. Today, with a three-fish fall and winter creel, it's tough to catch a limit even under good conditions."

"I don't know for sure what happened or what should be done. I think there is more to it than simply stocking more fish. The peak steelhead fishing of eight years ago was accomplished with the same number of fingerlings as are stocked today."

"A heavy late-summer harvest when the fish are staging on the main lake may contribute to the lower numbers in the streams. Boat anglers may keep eight fish on the lake. Perhaps that creel should be reduced. But that is only one possibility. There are probably other contributing factors, too."

"I do know this. There is nothing as exhilarating as catching a steelhead in the shallow water of a tributary stream."

"See you in the tribs."

Pennsylvania ANGLER



map graphics: Ted Walker

Pennsylvania's **BIGGEST** Largemouth **BASS:** *by Bill Porter*

*When, Where
and How Anglers
Catch Them*

The Commission issued 123 Junior and Senior Angler's Awards for largemouth bass catches made in 1991. To qualify for a senior award, largemouth bass must be at least five pounds. Four pounds is the minimum largemouth bass weight for junior awards. There were no junior awards in the top 10 entries.

When

Pennsylvania anglers caught their award-sized bass during each month of 1991. The leading 10 largemouth bass listed were caught in February (1), March (2), April (3), July (1), August (1), October (1), and December (1).

Where

Anglers caught these 123 largemouths in 35 counties, representing 63 Commonwealth waterways. Lake Arthur repeated its 1990 first place bass fishery with 25 award-sized bass. Shohola Dam had 12, Lake Wilhelm had eight, Peck's Pond, six, Tamarack Lake, six, Lake Ontelaunee and Minsi Lake, five each, and Glendale Lake, four.

Three bass were fooled in these waterways: Scotts Run Lake and Beltzville Lake. Two bass were reported from the following waterways: Harvey's Lake, Keystone Lake, Youghiogheny Lake, Twin Lakes, Promised Land Lake, Raystown Lake, Lake Wilhelm, Shawnee Lake, Lake Marburg, Nockamixon Lake, Memorial Lake, Lake Luxembourg, and Pymatuning Reservoir.

One bass came from each of the following waterways: Harmon Lake, Pahagaco Pond, Halderman's Pond, Middle Creek Lake, Hunters Lake, Moniteau Swamp, Adams County SGL Pond, Stevens Lake, Octoraro Lake, Fords Lake, Lake Chillisquaque, Pickering Creek, Opossum Lake, Harbor Acres Lake, SGL #117, Curwensville Lake, Springton Reservoir, Lake Wallenpaupack, Lake Pleasant, Lake Redman, Middle Creek Dam, Canonsburg Lake, Bush Dam, Lily Lake, Fairview Gravel Pit, Thorn Run Dam, Mill Creek Lake, Delaware River, Rose Valley Lake, Conewago Lake, Loyalhanna Lake, Monongahela River, Hershey Dam, Mauch Chunk Lake, Presque Isle Bay, and Johnson's Pond.

How

The big bass seemed to favor lures over natural baits by a reasonable margin. A representative cross section can be seen in the top 10 entries. In the order of fish weight, first to tenth rank: Spinnerbait, jig-and-pig, shiner, Mister Twister, shiner, Strike King, plastic worm, jig and worm, Bass Magnet, nightcrawler.

Moving down the list, crayfish and stone cats emerged as the



leading natural baits. Lures varied from those listed above with jigs, tube lures and surface plugs taking many bass.

State record

No new largemouth bass state record was caught in 1991. Donald Shade's 1983 record fish still stands. That bass weighed 11 pounds, three ounces but was only 18 inches long. Shade caught it in Birch Run Reservoir, Adams County.

The largest largemouth for 1991 was a 10-pound fish that measured 25 inches long with a girth of 19 inches. The monster took a spinnerbait in Harvey's Lake, Luzerne County, in July.

The second place fish weighed nine pounds with a 24-inch length. It took a jig-and-pig in Harmons Lake, Washington County, in January.

The remaining top 10 fish weighed in the eight-pound-plus range. The average weight of the top 10 was 8.62 pounds.

ANGLER

Cast and Caught



Hazleton resident Jim Kearns took this nice brown trout out of Lake Walenpaupack. The fish, weighing 13 pounds and measuring 32 inches, was caught on a Jitterbug.



Elizabeth resident Jack McDermott used live bait to catch this 13-pound, six-ounce channel catfish. He caught the fish, which measured 32 inches, in Raystown Lake.



Richard McBride, from Erie, is proud of his nine-pound, nine-ounce steelhead. He caught the 26 1/2-inch fish in Lake Erie using a Hot-'n-Tot.



Johnstown resident Wayne E. Thomas used a Rapala to fool this largemouth bass. He was fishing Shawnee Lake when the six-pound, eight-ounce fish struck. The bass measured 23 1/2 inches.



Sweet Valley resident David Scavone tricked this nice largemouth bass with a spinnerbait. The bass measured 23 1/2 inches and was seven pounds, 14 ounces. David caught the fish in Stevens Pond, Luzerne County.



Michael Sponsler of Harrisonville nailed this five-pound, seven-ounce largemouth bass. He caught the 22 3/4-inch fish in Meadow Grounds Lake on a buzzbait.



Canonsburg resident John Ketter caught this 5 1/2-pound palomino trout last May in the East Branch of Sugar Creek, Venango County. The 23-inch trout took a salmon egg.



Paul Kaplan, of York, caught this 3 1/2-pound palomino trout in Fishing Creek, York County. The action took place last opening day and Paul used a minnow to fool the fish. Good catch, Paul!

Cast and Caught



Brad Lloyd, of Dallastown, used a spinner to fool the 6 3/4-pound, 25-inch brown trout. He caught the big brown in Fishing Creek, Clinton County. Nice trout, Brad!



Andy Luchovick, of McKees Rocks, took this hefty striped bass out of Raystown Lake. Andy used live bait to convince this fish to bite. The striper weighed 18 pounds and was 36 inches long.



Joshua Gregory, age 15, shows off the carp that qualified him for a Junior Angler's Award. The Juniata River carp weighed 22 1/2 pounds and was 34 inches long. Nice fish, Josh!



Gordon Weir shows the four-pound, 12-ounce shad he caught in the Delaware River last May. The 12-year-old Warrington, Pennsylvania, angler fooled the fish with a gold hook on eight-pound-test line.



Milly Bowers, of Ridgway, displays the 1 3/4-pound bullhead she caught in Big Mill Creek, Elk County. Milly caught the 15.25-inch-long bullhead on a nightcrawler.



Greg Misenko caught this albino catfish from Mill Creek in Lancaster County. The 17-inch fish was fooled with clam snouts. Just 15 minutes later, Greg's stepfather caught a second albino cat!

We Are Looking for a Few Good Anglers

The Pennsylvania Fish and Boat Commission is looking for anglers to get involved in its SMART Angler fishing skills program by becoming Certified Fishing Skills Instructors (FSI). The Commission offers the SMART angler program through the Bureau of Education and Information's Keystone Aquatic Resource Education Program (KARE).

The letters in SMART help kids of all ages remember things that are important on any fishing trip. They are as follows: Safety first, Manners are important, Appreciate clean water, Release your catch, and Teach others to be SMART Anglers.

SMART Angler clinics are held at clubs, day camps, parks or nature centers. They are led by Fishing Skills Instructors (FSIs). The FSIs lead the kids through half-day, full-day or week-long programs on being SMART. In the clinics kids learn about casting, fishing safety, what to do when they catch fish, knots, and good outdoor manners (ethics), and they even get to fish! The participants get "I'm a SMART Angler" stickers, an activity book packed with games and puzzles, a litter bag and a letter to the folks at home letting them know their child is now a SMART Angler. Parents can send in a coupon, included in the packet, for more information on fishing in the Commonwealth.

Anyone interested in sharing the sport of fishing with kids aged eight to 12 can be a Fishing Skills Instructor. FSIs can be experienced anglers or week-end worm dunkers. They can even be folks who have never picked up a fish-

ing rod before! The only things they are required to have are a valid Pennsylvania fishing license and a desire to learn how to be SMART.

FSIs are trained in basic fishing skills, knots, aquatic ecology, safety, ethics, teaching the clinics, and many other topics. They receive this training in a 10-hour workshop that is led by Commission representatives. To help them with their workshops, they receive an instructor's manual loaded with information on teaching tips, basic fishing tackle and techniques, first aid, safety tips and tons of activities and games. Instructors also receive a set of fish charts, a handy fishing vest, the use of fishing tackle for the clinic and a newsletter, which is published biannually. Once certified, Instructors set up SMART Angler clinics at their club grounds, community parks or a nearby ponds.

To be certified, you must attend a FSI training workshop. For more information on workshops scheduled for your area, or to set up a workshop at your club or camp, fill in and return the coupon below.

Name _____

Address _____

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State _____

ZIP _____

Phone Number _____

BABACKTALK

Would you like a photograph of you and your catch to appear in *Pennsylvania Angler*? Send a photograph of you and your catch to the *Angler* for publication consideration in the "Currents" section. Please send only snapshots and prints, either color or black-and-white. Please—no slides and no pictures larger than 8x10. Include a self-addressed, stamped envelope if you want your picture returned.

The Fish & Boat Commission also invites you to write letters to the editor in this space if you have an idea on *Pennsylvania Angler* content, a question or concern about the Commission or about fish and fishing, or a helpful idea for anglers or boaters. Letters are edited for clarity and space considerations.

Address correspondence to: Art Michaels, Editor, *Pennsylvania Angler*, P.O. Box 67000, Harrisburg, PA 17165-7000.

- ☐ **Yes**, I want to be a Certified Fishing Skills Instructor.
- ☐ I want to set up a FSI training workshop.
- ☐ Send me more information on the Fishing Skills Program.

Return this coupon to: **SMART Angler Program**, PA Fish and Boat Commission, P.O. Box 67000, Harrisburg PA 17106-7000.



"Crystal Pool" is the title of the second PA Trout Unlimited print, by artist George LaVanish. The print is the second in the organization's series of three Presidential Edition prints, cosigned by the artist and by President Jimmy Carter. Money raised through the sale of the print goes directly to the state council of Trout Unlimited. For complete details, contact Dr. William Kodrich, PA Council of Trout Unlimited, P.O. Box 9, Fairmount City, PA 16224. The phone number is (814) 275-2531.



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

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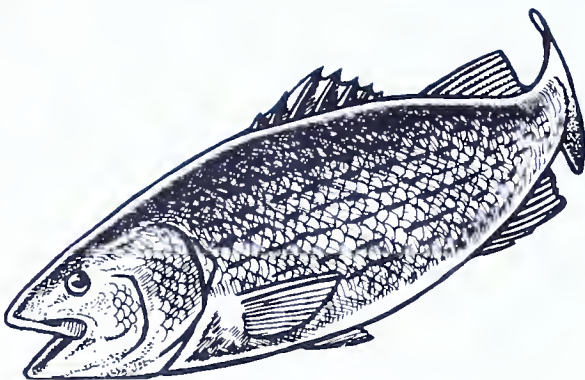
Fall provides fast smallmouth bass fishing on the Susquehanna, Juniata and other Pennsylvania rivers. Try floating a few miles early in the morning. Use jigs and live minnows.

Marabou tails on jigs and flies are effective because the marabou undulates in the water. Even when the lure is for the most part motionless underwater, a marabou dressing moves enticingly.

Check out your bass bugs closely. Imagine a line perpendicular to the hook shank at the bend. The line should not intersect the hook point. If it does, that bug's hooking qualities are not good. Bugs with their hook points somewhat behind the bug body have the best hooking capability.

Dropoffs and points make productive trolling territory. Use crankbaits to comb these areas. Vary your trolling speed and the depth at which you fish.

Fish Fact: The hybrid striped bass is a hatchery cross between a female striped bass and a male white bass. A distinguishing difference in the hybrid's appearance is the hybrid's broken stripes below the lateral line.



A wide-brim hat shades your eyes from the sun, but if the underside of the brim is dark-colored, it can better reduce glare off the water.

When you first use a leader, stretch it a little to take out the coils.

Trout fishing now can be wonderfully pleasant. When air temperatures are in the mid-50s and water temperature is also about 50 degrees, you'll enjoy the best action with flies from about 11 in the morning to about five in the afternoon.

Fall is a productive time to fish terrestrials for trout. But watch for late-season hatches, like Blue-Winged Olives, caddises and stone flies.

When you store your tackle this winter, touch a Q-Tip around the inside each rod's tip-top guide. Scratches, dents, nicks and pitting all show up by catching the cotton strands. Replace damaged tip guides this winter because nicked guides can fray line.

It's a good idea to let your local tackle shop take down, clean and renew your reels. Replace the drag washers, too. When you get your reels back from servicing, store them for the rest of the winter with the drag set very light.

Silence your canoe strokes by clamping split garden hose sections over the canoe's gunwale. This silences the dings and knocks on the gunwale from paddling.

Now is a good time to check your fly tying and lure making supplies for this winter. Make a list of replacement items and new supplies, and stock up before the snow flies.

illustration- George Lavanish

On the Water

with Dave Wolf

One Child's Return

Kevin had fished since the age of six. He remembers well the dirt roads that led to the small ponds and lakes and the fish that swam there. The highlight of his weekends had been the fishing trips with his father. Never well planned, never thoroughly discussed or thought out—the decisions were often made as they traveled from home during the early morning at a time when even the sun had not yet thought of rising. To John it was part of the mystique, like capturing nightcrawlers the night before, a practice he quickly learned with greater success after a heavy rain. Gathering bait was an art in itself, and quick fingers and a strong flashlight directed in the right area at the right time were the keys to success.

Nightcrawlers in the refrigerator meant that the fishing trip was secure. Kevin knew that nothing less than a violent thunderstorm would keep him and his father from fishing, and even then thunderstorms were nothing more than passing inconveniences. In fact, sitting in the cab of the truck chatting with his father about what they may catch today was nearly as exciting as the fishing. It also meant eating the packed lunches and extra goodies was allowed before normal meal times. Besides, once assured that they were safe within the confines of the vehicle, Kevin found the streaks of lightning and the rolling thunder a display of nature with little equal.

The countless days of fishing are now clouded in Kevin's mind.

They are times that father and son had spent together. But now Kevin is married with children of his own and, well, things are different.

After graduating from college, Kevin moved to the city to pursue his career. The move had proven successful. Kevin was making more money than he had ever imagined and his children were involved in everything from swimming lessons to aerobics. Kevin and his wife, Darlene, spent countless hours running their children and themselves from one function to another. They were on their way to the top and both found quality time to be at a premium.

As a family they rarely did anything together; separately, they accomplished much. On rare occasions when they had time for a family outing, they visited the local museum or the nearby amusement park. Kevin had taken up golf as his form of release and Darlene joined a health club. The children were busy with school activities and their friends.

The visits back home were reserved for holidays and special occasions. On the last visit, Kevin's father and mother greeted

the family at the end of the dirt lane that led to their modest home. Kevin's parents admired the new car he had just purchased and the children's top-of-the-line clothing. Kevin and his father talked late into the night about the success of Kevin and Darlene's careers. Kevin's father was astonished at their income, their new house, cars and wardrobe. He had always wanted the best for his son and the most. It seemed that Kevin was on the high road to success.

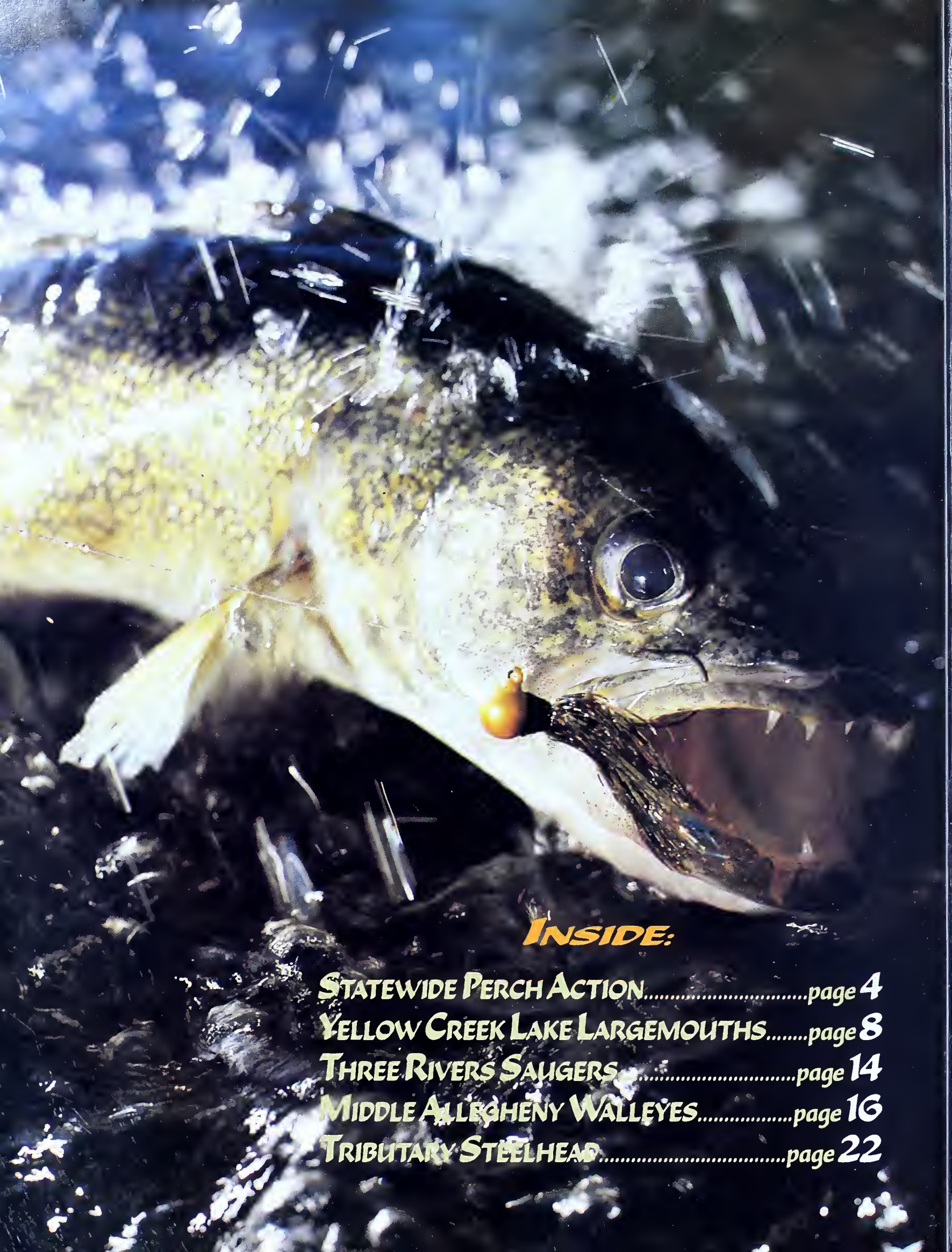


Upon Kevin and his family's departure, his father clumped his fishing gear into the old worn johnboat and headed to one of the ponds that Kevin and he had fished together. He thought deeply of Kevin's visit. He was proud of his son and what he had accomplished. He was happy that Kevin was able to acquire the many material things in life that he had not.

The bobber went under and Kevin's father raised the rod high to set the hook. A largemouth catapulted from the water, leaping above and across the lake's still surface. Kevin's father held the fish high and admired it for a long time. He thought of Kevin and the days he and his son had spent on this very lake. He wished that Kevin would have caught the fish. Well read, Kevin's father was well aware that fewer children were now fishing than when Kevin was a child and the written words of Aldo Leopold rang in his ears, "There are some who can live without wild things and some who cannot."

Kevin's father released the bass, loaded the old johnboat and returned home. As he drove down the dirt lane he could not help but feel burdened. Had he not taught his son the proper enjoyment of the outdoors? He entered the house and sat on his favorite easy chair. The phone rang, it was Kevin. "I was thinking, Dad, would you mind taking me and my children fishing next weekend?"





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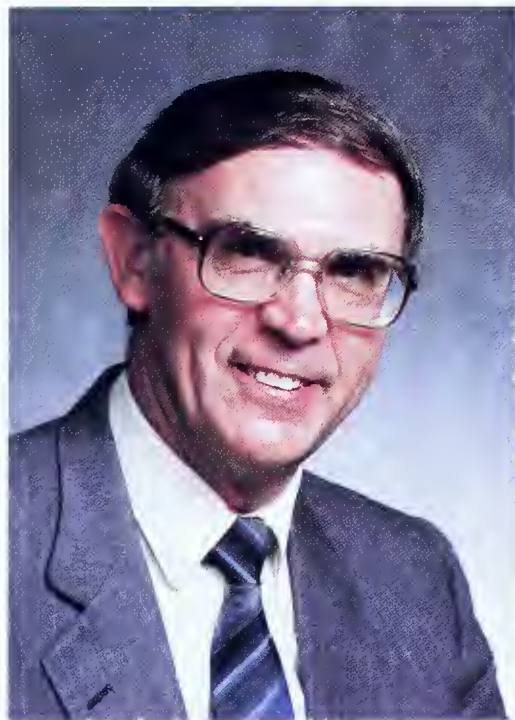
Pennsylvania **ANGLER**



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Straight Talk

Land & Water Acquisition: The Commission's Heritage



Edward R. Miller, P.E.

Executive Director

Pennsylvania Fish & Boat Commission

During the past 35 years, the Pennsylvania Fish and Boat Commission has recognized the vital importance of land and water acquisitions to provide public fishing and boating opportunities. It has also demonstrated that protection and management of valuable aquatic resources is best accomplished by placing valuable lands and waterways in public stewardship, either by fee purchase or lease.

Unlike most state agencies, the Fish and Boat Commission, like its sister agency the Pennsylvania Game Commission, must set aside operating funds for land acquisition efforts. The only exception to this practice was the Project 70 Land Acquisition Program. This program was a bond issue adopted by the voters of Pennsylvania, and it is now being amortized by General Fund tax money. This situation makes it difficult to maintain the continuity needed to conduct an aggressive land and water acquisition program.

In spite of these restrictions, the Commission has an enviable record of accomplishments. Commission facilities now include nearly 300 fishing and boating access areas on Pennsylvania's lakes, rivers and streams, including six Schuylkill River, 42 Susquehanna River, three Youghiogheny River, nine Monongahela River, 11 Juniata River, 16 Delaware River, 19 Allegheny River, and four Ohio River sites, and five Lake Erie facilities. Twenty-one properties are owned and operated for warmwater and coldwater fish propagation.

More than 47 public fishing and boating lakes and reservoirs have been acquired by the Commission while valuable stream sections on Big Spring Creek, Spring Creek, Penns Creek, Yellow Breeches Creek, Cedar Springs Creek, Delaware River, Susquehanna River, and many others have been placed in public ownership. Many miles of streams have also been leased to the Commission for public enjoyment through the Adopt-a-Stream program.

One of the Commission's greatest accomplishments, however, has been the successful purchase of seven of the largest springs in the Commonwealth, including Blue Spring, Centre County; Oswayo Springs, Potter County; Big Spring and Boiling springs, Cumberland County; Ingham Spring, Bucks County; Piney Springs, Blair County; and Cedar Springs, Clinton County. Also, negotiations are currently in progress for purchase of a portion of Falling Spring Creek in Franklin County.

Today it is even more apparent that acquisition of lands and waterways is the key to the future success of fishing and boating in the Commonwealth. It is also recognized by the general public that valuable aquatic resources must continue to be placed in public stewardship. Waterway and watershed protection groups are being formed throughout the Commonwealth and unsolicited funds for land acquisition are being donated to the Commission, apparently inspired by public concerns and recent Commission acquisition successes.

In July 1992, the Commission charged the staff with developing and implementing a "Conservation Acquisition Partnership" program to solicit and accept acquisition funds. The program now under design has minimal administrative overhead. It's simple and focused, and it fits in with other Commission efforts. It is planned that tax deductible cash donations can be facilitated through fishing license sales agents, Commission personnel and facilities, registered boaters, sportsmen, civic and business organizations and private citizens. Gifts of private property or easements will also be actively solicited, and donors will be rewarded in a formal manner. Donors will be given proper recognition and awards will be based on the level of giving.

The Commission, in turn, will match donated funds with fishermen's and boaters' license and registration funds, and seek other available matching money to sustain a continuous land and water acquisition program. It is possible that for each dollar donated nearly eight dollars' worth of lands and waters can be purchased.

Details of the new "Partnership Program" will be available early in 1993, and fund solicitation and acquisition efforts will commence immediately. It is a "partnership" effort that is crucial to Pennsylvania's future. It is the Commission's heritage.

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Pennsylvania ANGLER

The Keystone State's Official Fishing Magazine

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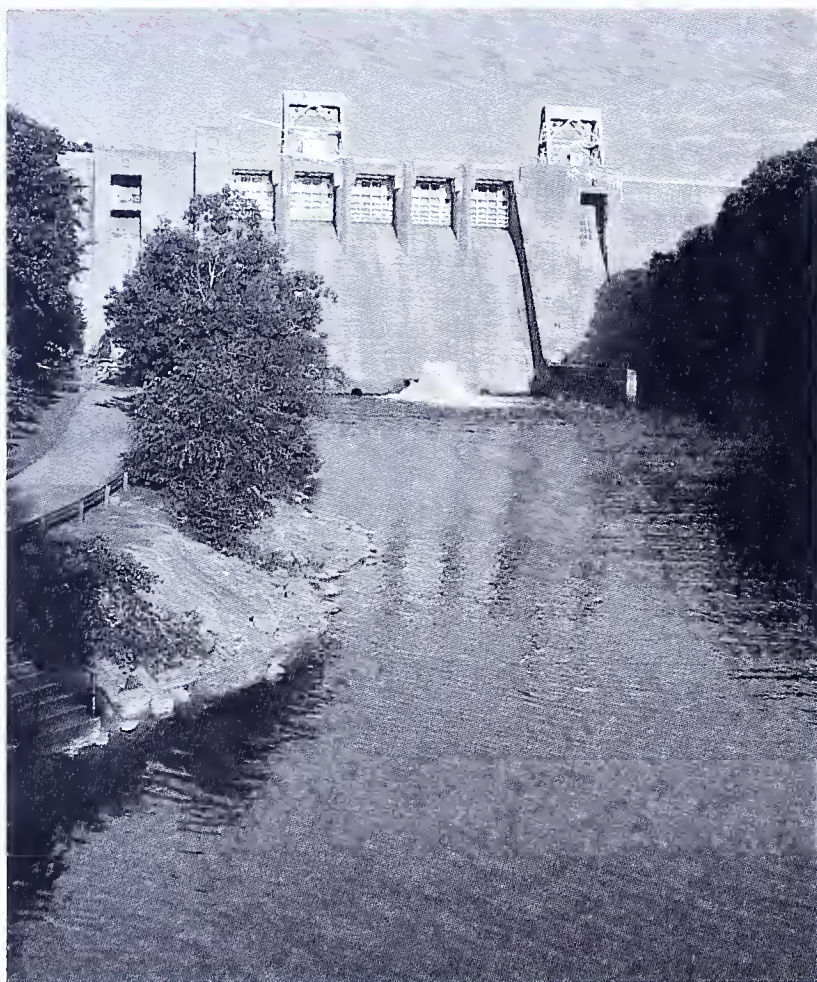
The covers

This issue's front cover, photographed by Doug Stamm, shows an ice fisherman catching a crappie. The back cover, photographed by Dave Wonderlich, shows an angler trout fishing in northcentral Pennsylvania. Opportunities like these abound for fishing during the winter. If hardwater angling gets you going, please turn to page 25 for the inside information on a Bedford County hotspot. Open-water trout fishing enthusiasts will want to check out the articles on pages 16 and 22, and beginning fly anglers, or those who would like to take up the sport, can find 31 immediately useful ideas in the article on page 8. If you fish from a small boat, the project described on page 20 could help you raise your score next season. Fly tiers will want to check out the unconventional pattern on page 12, and for the details on some top-notch wintertime open-water fishing, please turn to page 4. Remember also that a gift subscription to *Pennsylvania Angler* makes a great stocking stuffer. For details, please see the gift subscription card stitched into this issue.



Pennsylvania's Wintertime Tailrace Fishing

by Jeff Knapp



The outflow of Mahoning Creek Lake, Armstrong County (above), offers walleyes, northern pike, trout, crappies and muskies. Below is the Allegheny River Lock & Dam 6 tailrace.



Fishing isn't just a warm-weather activity. Increasing numbers of anglers are discovering the benefits of extending their efforts into late-fall and winter. The growing popularity of ice fishing is an example of this idea, even though Pennsylvania's recent mild winters have left anglers with hardly any ice.

Ice or no ice, major river systems stay relatively ice-free and provide varied open-water cold-weather fishing opportunities for many species.

Another opportunity during the cold-weather months is fishing in the tailraces of many Pennsylvania impoundments. In most instances, these areas receive only light, localized fishing pressure, but the action can be outstanding. Best of all, the tactics and equipment needed to score are simple, and shore fishing is often the best, and in many cases the only, approach.

The fishery

Tailrace fisheries exist in all shapes and sizes. Many species of fish are available, depending on the particular waterway. The long-standing idea classifying gamefish as dormant and inactive when water temperatures are low is false, and anglers have been tossing the false idea aside.

The truth is that most species feed consistently during the winter. The advantage of fishing in a tailrace is that under normal con-

ditions you can be assured that some gamefish are present. If you're not catching fish, it's usually not because they aren't around.

Certain families of fish, most notably walleyes and saugers, undergo a "run" in the late fall. Rising water and cooling water triggers the "run." Substantial numbers of fish travel upstream during these conditions and stack up in tailrace areas.

Tailrace fisheries offer another distinct benefit to the angler. Because of the current, the area stays ice-free in all but the nastiest cold weather. When a tailrace freezes, it's not fishing weather.

In addition to walleyes and saugers, anglers catch several other species in tailraces. Yellow perch represent the most commonly caught panfish. Crappies are also present in some locations, as are bluegills. The tailraces in major rivers in the western part of the state have

The open-water fishing in many Pennsylvania waterway tailraces can be hot during the winter months.

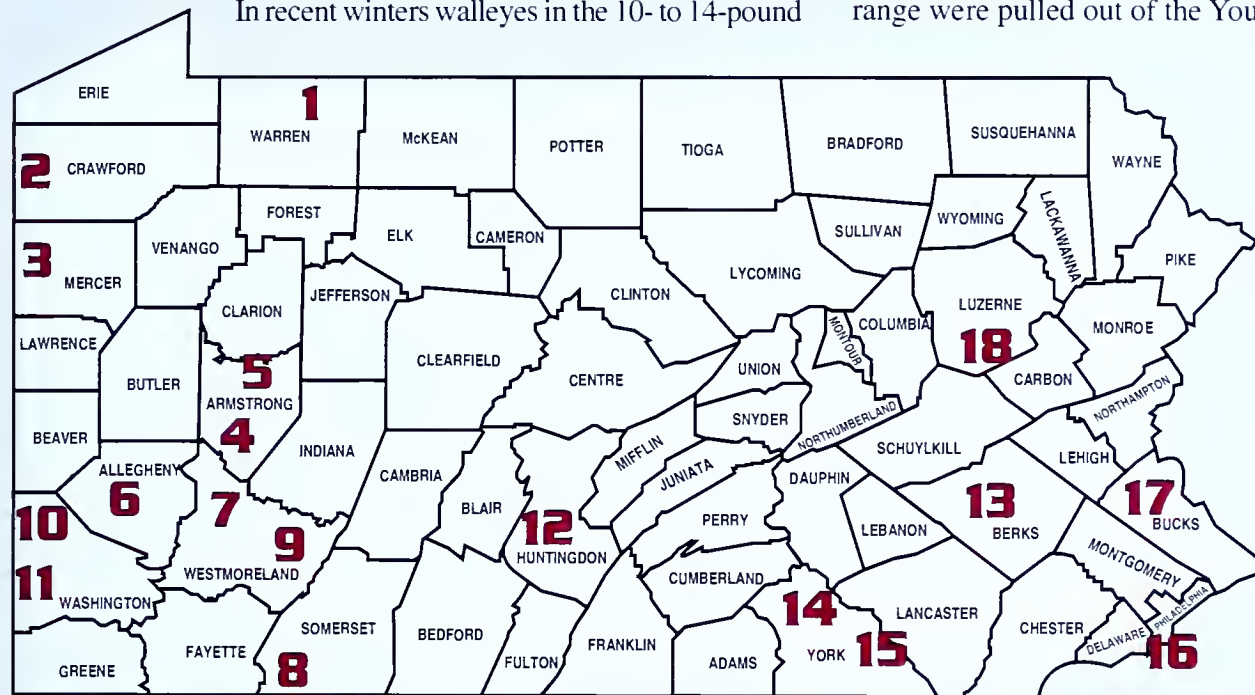
18 Top-notch Tailraces

Here's a look at some of the state's better tailrace fisheries. Several flood control reservoirs in the western portion of the state have tailraces. Mountainous central Pennsylvania has a few entries, as does the eastern section of the state.

This is a sampling—a compilation of the thoughts of experienced anglers, Fish and Boat Commission area fisheries managers, and federal resource managers. These are quality examples, but by no means are they the only tailrace fisheries Pennsylvania has to offer.

1 Allegheny Reservoir (Kinzua). Brown trout, walleyes and muskies are taken in the Kinzua tailrace each winter. The trout fishery is open year-round, and the trout reach impressive sizes.

In recent winters walleyes in the 10- to 14-pound



range were taken in the Kinzua tailrace, and the potential for much larger fish certainly exists.

2 Pymatuning Reservoir. Wall-eyes and crappies are the top quarries below this popular fishing lake. The lake has the reputation of producing small walleyes, but fish in the 20-inch class and larger show up in the winter tailrace fishery. Some theorize that the fish run up the Shenango River from Shenango Lake.

3 Shenango Lake. Shenango Lake also has wall-eyes in the tailrace, plus muskies and trout. An occasional channel catfish and striped bass are taken each winter.

4 Crooked Creek Lake. Improving water quality in this drainage is resulting in a fine fishery, and the tailrace reflects this. Saugers and walleyes are common during the winter because the Allegheny River is only eight miles below the Crooked Creek tailrace.

Yellow perch and crappies are also present, and some of the crappies reach 12 to 14 inches. Perch commonly go nine to 11 inches.

5 Mahoning Creek Lake. Anglers here find walleyes, northern pike, trout, crappies and muskies. You'll find a small rock island below the spillway, and it offers an excellent fishing spot. Low water flows are needed to wade to the spot, however.

6 Three-Rivers tailraces. I'll lump these together because the fishing is nearly identical in all the area's tailraces.

Saugers and walleyes make up the most numerous species. An 18-inch sauger is a good fish, as is a 20-inch walleye, though much larger walleyes are caught each year. White bass are also com-

mon and crappies show up occasionally. Some crappies run to 12 inches.

Slack water areas are below the lock sides of the dams, and gamefish can be found nearly always below these structures. On some dams (on the Allegheny), powerhouses are on the opposite side of the dam. Fishing piers are in place, and the spots can be productive when flows are low.

7 Loyalhanna Creek Lake. Saugers run up from the Allegheny to this tailrace. There is also a population of saugeyes—a walleye/sauger hybrid. A tiger musky is occasionally taken in the Loyalhanna tailrace during the winter.

8 Youghiogheny Reservoir. Brown trout in the 18- to 22-inch range were pulled out of the Yough tailrace during the winter of

1990-91. A walleye fishery exists below Yough dam, though turbine mortality problems from the relatively new addition of a hydroelectric facility have cut into this sport.

9 Conemaugh River Lake. The Conemaugh River has a history of water quality problems, mainly acid mine drainage. This is changing as old mine seeps clear up. This tailrace plays host to yellow perch, and the number of reports of legal-sized walleyes is also increasing. This area is a developing fishery that should improve in the years to come.

10 Cross Creek Lake. The productive waters of Cross

Creek Lake feed a good tailrace fishery. Walleyes and saugeyes make their way into the tailrace from the lake. Saugers migrate here from the Ohio River. Panfish such as white bass, redear sunfish and bluegills are also caught.

11 Dutch Fork Lake. This lake received the original plantings of saugeyes, and fish wash into the tailrace.

12 Raystown Lake. The tailrace fishery is somewhat limited at Raystown because it is wide and shallow, not offering the greatest habitat. Rock bass and bluegills make up most of the catch, though occasional walleyes and stripers show up.

13 Blue Marsh Lake. An excellent fishery flows below Blue Marsh. Anglers catch walleyes in the 18- to 24-inch class and tiger muskies in the 30- to 40-inch range. A trout fishery is also present, with most of the harvest consisting of seven to 14-inches.

14 York Haven. Muskies and walleyes are taken from the tailrace of this Susquehanna River impoundment.

15 Safe Harbor. Same story as York Haven. Anglers go for muskies and walleyes throughout the winter.

16 Fairmount Dam. The tailrace of this Schuylkill River dam is noted for larger tiger muskies during the winter than at other times.

17 Lake Nockamixon. Walleyes of 15 to 24 inches are the mainstay of this tailrace, though bigger walleyes are occasionally taken.

18 Francis E. Walter Dam. Trout provide a viable wintertime fishery below this Lehigh River impoundment.—JK.

lots of white bass. Both purebred muskies and tiger muskies provide a top-line quarry in some locations.

Trout, in some cases large trout, add yet another element to a few of these spots. The Allegheny Reservoir (Kinzua) outflow is a good example. Hefty trout are caught there, and the fishing is open year-round. The Youghiogheny Reservoir is another place where trout can be creelied 12 months a year, and there are other smaller-scale trout fisheries.

Tailrace fisheries often hold many species, and what you may catch is not limited to what I've listed.

Types of tailraces

The physical characteristics of Pennsylvania's impoundments vary, and so do their tailraces. In some cases, a discharge creates only a tiny pool. In other places, fishing opportunities may be good hundreds of yards below the tailrace.

Here's a general idea of what's out there:

- **Cement impoundments with gates.** This configuration is common to many of the U.S. Army Corps of Engineers flood control dams. Armstrong County's Mahoning Creek Lake is an example.

The discharge comes from the bottom of the dam via sluices. In the case of Mahoning, the discharged water from the dam goes into a settling pool (about 200 yards long) and then travels over a spillway (a small fixed-crest dam) back into the original creekbed. Some decent fishing takes place in the settling pool, but the area below the spillway is most stable and provides the most consistent fishing.

Dams like these—both with and without settling pools—are common across the state. The size of the tailrace pool is generally proportional to the size of the waterway impounded.

- **Earthen impoundments.** Many state park lakes, along with federal flood control lakes (Corps of Engineers projects), are earthen impoundments reinforced with rip-rap. Some, such as Indiana County's Yellow Creek Lake, have both top and bottom discharge.

Federal projects, like Youghiogheny Reservoir and Crooked Creek Lake, have underground cement-lined tunnels that draw water off the bottom of the reservoir.

Tunnel discharges, because of their nature, can have high flow velocities when discharging substantial volumes of water. However, they empty into fairly small pools.

- **Navigational impoundments.** The three major river systems of western Pennsylvania—the Allegheny, Monongahela and Ohio—all have navigational dams. The action below these dams can be hard to match.

The dams on the Allegheny are fixed crest—the water flows over the dam. The Ohio and Mon have fixed-crest and gated dams. On gated dams discharges can be controlled, and they take place from the bottom of the dam.

Because of the large size of these rivers, the resulting tailrace fishing areas can be substantial.

Fishing tactics

These ideas are based solely on fishing from shore. Even though the physical nature of tailraces may vary, the correct way to fish them is quite simple. The key to finding fish is locating the quiet water—slack water areas—adjacent to the fast water.

One point needs to be made up front. High water, that is, floodwater, virtually eliminates fishing possibilities. Such conditions may improve prospects farther downstream, but the tailrace fish are pushed out of the immediate area.

Tailrace Trout

Trout are in some of Pennsylvania's many tailraces, and their presence creates some special considerations.

Some tailraces, such as Kinzua, Youghiogheny and Raystown, have no closed season on trout. On the other hand, other tailraces are part of approved trout waters and are closed to all fishing from March 1 to the opening of trout season.

Because the walleye-musky-pike season doesn't close until mid-March, some anglers mistakenly continue to fish approved trout water during this period. Be sure to check the specific regulations regarding the waters you fish.—JK.

Each tailrace needs to be examined individually. With a little experience, you can quickly recognize the high-percentage areas. On a cement dam, if sluices on the left side of the dam are open, the right side likely has the quiet water. On a tunnel outflow, you may have to fish downstream of the torrent, where the flow settles. On a navigational dam, the locks form a current break where fish hold.

Fishing approaches can be both active and inactive. By "active" I mean casting and retrieving. The jig-and-minnow combo is a top choice for this tactic. Use 1/8-ounce and 1/4-ounce jigs tipped with two-inch fathead minnows for walleyes and saugers. Smaller presentations may be needed for panfish.

If live bait isn't your thing, try a plastic offering. Minnow-shaped crankbaits like Rapalas, Rebels and Storm Thundersticks should also fit the bill. Gamefish will nail these offerings when they are active, even in this cold water. They are good choices for larger predators like muskies.

For inactive tactics, a bait rig consisting of hook, line and sinker can be still-fished in premium locations. Vary the sinker size with depth and current conditions. Fatheads and small shiner minnows make great wintertime baits.

If you're fishing specifically for trout, you will want to gear up with scented and flavored prepared trout baits.

Shore-bound tailrace anglers should not overlook slip-bobber fishing. Using a slip-bobber gives the angler depth control, and relief from the snags that dot many of these locations. It's a fine compromise between "active" and "inactive" presentations.



photo: Jeff Knapp



photo-Bruce Inyram

*Shore fishing is the best, and
often the only, approach to
tailrace fishing.*

31 Tips

for the *Beginning Fly Fisherman*

by Marge Wonderlich



As a beginning fly fisherman I have been given a lot of advice that was all well and good, and absolutely necessary, but it only really began to sink in and make sense as I continued to fish more and more. One of my first spring fly fishing experiences was on Kettle Creek where my family and I were camped—it's a real treat to set up our site next to the water so we can see the flies as they emerge and watch the trout as they swirl and splash in pursuit. The stream had been stocked with brown and rainbow trout and was still high from spring thaws, and my husband David and I couldn't wait to try a few fly pattern variations he had just tied. As I began to pick my way into the creek, the heat of the afternoon sun beating down made the icy water feel good through my waders. I started to get action immediately even though the trout were interspersed with chubs.

When you are beginning to fly fish, it's exciting to bring fish all the way in successfully (even the chubs). I also enjoyed releasing them, as I do now, and watching as they recover and dart away. Eventually the sun went down behind the mountain, evening shadows formed and grew, the air turned cold, and two things happened almost simultaneously—I no longer appreciated the chill of the water and the trout stopped feeding as quickly as turning off a switch. Time to head back to camp.

During that first spring experience and many others that followed, I tried to do what I was told and was very happy



photos by Dave Wonderlich



The author uses forceps to make removing the hook from the fish's mouth easier, and it increases the chances of releasing the catch without injury.

31 Tips for the Beginning Fly Fisherman

when I actually caught trout. Gradually I started understanding the meaning behind all those directions, and I began discovering certain ideas that helped me be more successful.

The following tips are designed for the beginning fly fisherman. Fly fishing may tend to scare off some people, intimidated by all the line sailing back and forth over the water, or hearing the names of the flies that are observed with such care, matched as closely as possible, tied in great detail, and then used with such finesse. I have learned that it is a gentle sport, one in which you can gain a sense of peace and appreciation of God's creation as you match wits with the trout.

As you begin to fly fish, go at it with a sense of tuning into and being in harmony with your surroundings, rather than attacking it and needing to catch something to take home right away—you will enjoy yourself much more.

Clothing, equipment

1 In the first six weeks of the new trout season, the water can be quite cold. Neoprene waders are insulated and provide the most comfort against the chill. As the weather warms into late May and June, you will enjoy the less insulated rubber waders, and later on you may want to use the nylon flyweights so you can feel the cool stream in the heat of summer.

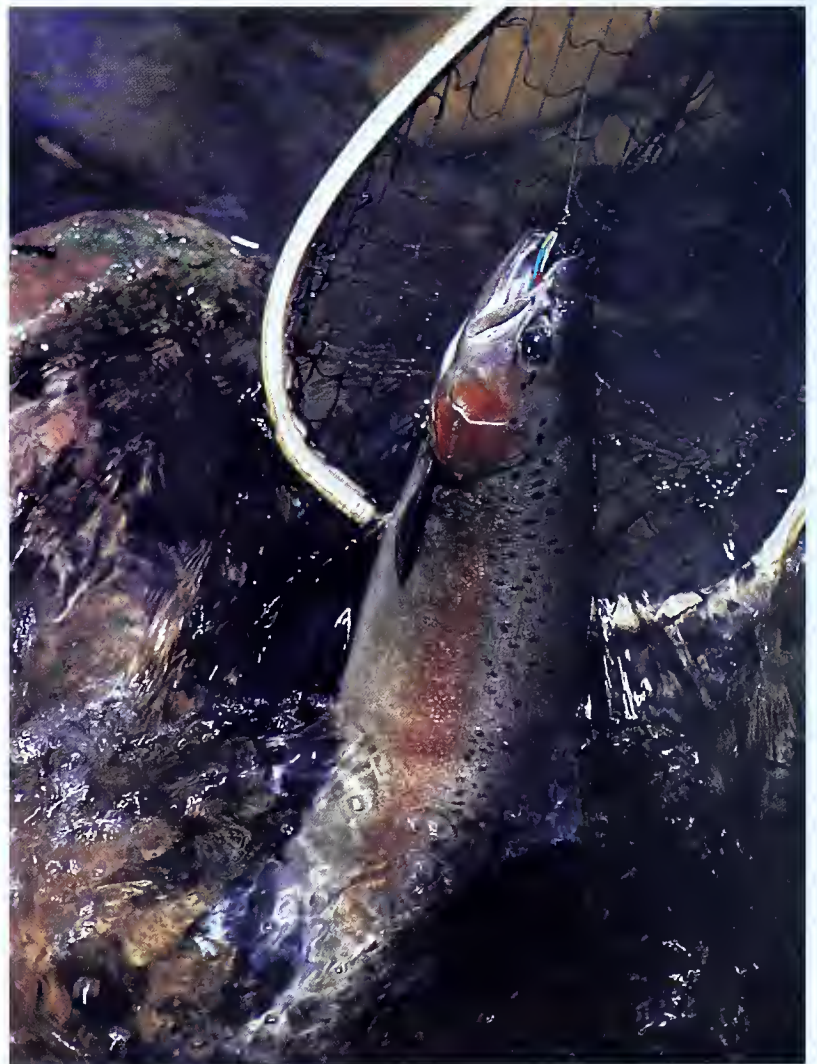
For smaller mountain streams, hip boots are a handy alternative to waders. They are easy to slip on, comfortable to walk in, and even cooler than waders in the hottest summer months.

2 Wear a belt at your waist outside the waders. Tighten it after entering the water to allow the air to escape and to ensure as tight a seal as possible. In the event you should slip and fall, the tight belt prevents water from immediately filling your waders, which would make it harder to regain your balance.

3 It helps if your waders have cuffs that fold down over your boot laces. Cuffs prevent the laces from tangling in briars or sticks, and they keep small stones from getting into your boots. If your waders don't have cuffs, buy a pair of wading gaiters. They go on like a pair of socks and cover your boots and laces.

4 You need to wear either a fly vest or pack, equipped with several pockets to store your gear. I prefer a double pack (front and back connected by two straps) because it is adjustable and can be raised according to the wading depth. It helps keep my flies and gear dry.

5 As you get your rod ready for fishing, be careful to thread the line through every guide, making sure the line goes straight through the guides and is not wrapped around the rod. If you attach your fly to the leader before realizing you made a mistake, you will have to retie your fly to the leader as well as rereg your rod. This loses precious minutes that could be spent fishing.



6 Remember to display your license so it is clearly visible. I attach mine to the front strap of the pack I always use. That way I don't need to worry about finding it every time I go fishing.

7 Make sure to take along an extra leader and several spools of tippet material. When your leader starts to get too short from tying on different flies, simply attach three more feet of fine tippet material (with a blood knot). Use the same thickness as the finest part of the leader—7X leader, 7X tippet.

8 When you load your packet, if you use the type with a pouch in front and behind, as I do, make sure to balance your gear—if the one at your back is heavier, it will keep slipping down and it will tend to choke you, which can be a nuisance.

9 Use a heavy duty retractable key ring holder to attach your net to your belt, or to the ring at the top center of the back of most vests. The retractable holder keeps your net up out of your way when not in use, but still handy when you need it. A retractable holder is available at most hardware and department stores.

10 Take a pair of forceps with you to remove the hook more easily from the trout's mouth, but use them carefully to avoid damaging your fly. The forceps give you a better chance of removing hooks without injuring the trout.

11 Nail clippers are very handy when kept in your pack to use on trimming knots when changing flies, leaders or tippets. They can be purchased at tackle shops with a pick on the handle end to clear the hook eye of cement.

12 In addition to being aware of the current hatches and matching them, when choosing your dry fly, first try a white or cream-colored one, or a dark one with lighter-colored wings, such as the Adams. It is much easier to see on the stream, so you can follow its progress to determine when a trout takes.

Fishing

13 Pay attention to your fly as it floats downstream. When a trout takes, you have only an instant to react and set the hook. Invariably, the moment you glance somewhere else, a trout takes your fly and you'll miss your chance.

14 Cast your rod in the positions of 10:00 (in front to the stream) and 1:00 (to your rear), imagining yourself standing in the center of the face of a clock. In the front, this gives you force to lay the line and leader out over the water. Keeping your rod tip up on your back cast keeps your line, leader and fly high, out of streamside rocks and brush.

15 As you cast, let the line lay all the way out behind you (count at least two seconds). At first it may seem longer than you think necessary and feel awkward, until you feel the rhythm of the casting process. Letting the line lay out behind you prevents the fly from hitting the rod or line in too tight a loop.

16 A slight snapping forward of your wrist makes full use of the power of the rod. This way you won't wear out your arm in the first half-hour.

17 Your backcast may be almost as important as your fly placement. Be aware of your surroundings, direct your cast where you won't continually snag overhead branches.

18 When you do catch a twig with your fly, move your rod tip to the opposite side of the snag to free it more easily from a different angle.

19 Use a sharp hook and keep it sharp with one of the small, ballpoint-sized hook sharpeners available at most tackle shops. Keep it handy in your pack. You will hook and land more fish with a sharp hook.

20 Whenever you use a dry fly that you want to float, it helps to rub a silicone-based flotant into the fly (also available in fly

shops). Bring it in occasionally and squeeze the water out of the body, blow the wings off, and finish with another drop of flotant (kept in your pack).

21 Make sure your hook isn't dragging any salad around—a real fly won't have any weeds attached to it, so your imitation certainly shouldn't either. A clean fly floats better above the water and has better action below the surface.

22 Every now and then, and especially after you catch a trout, check your hook to make sure it hasn't straightened or the tip hasn't broken off. Either case can leave you wondering why you aren't hooking fish.

23 Take a variety of flies so you can try a new pattern or size if what you are using doesn't seem to attract the fish. If you cleanly miss hooking a trout on a light fly and the fish won't hit again, try a darker pattern and many times the trout will take again.

24 Use an improved clinch knot to tie on the fly. After putting your line through the hole of the fly, wrap the end five times around, put the end through the first circle next to the hole, and then put it through the circle you just made. Pull tightly on both the end and the line. Make sure your knot is securely tied and pulled tightly. More than one fly has been left in a trout's mouth because of a poorly tied knot.

25 After you have fastened your fly to the leader, it's important to cut off any excess leader material as close as possible to the knot—a trout will be spooked by a fly with any material left dangling.

26 If it appears that none of your dry flies is working, try dragging one through the water to wet it thoroughly. After it's wet and you have cast, give it a good jerk to submerge it, and with the fly just under the surface twitch it ever so lightly as you bring it back in, imitating an emerger. Be ready for a hard strike at any moment. Remember that even though the fly is below the surface when the trout hits, you must still set the hook.

27 Watch the water for feeds that you recognize by seeing either the actual fish or the circular pattern the trout makes on the surface when it takes the insect. Cast your fly above that feed and let it drift down to where the trout is waiting (and hopefully still hungry). Usually you want to avoid placing your fly at the exact location of the feed because that will spook the trout.

28 You can use heavy 3X or 4X leader seven to nine feet long in the cold wintry months, but gradually change to a longer 12-foot 5X or 7X leader as the season warms and lower, clearer water allows the trout to become more aware of what is attached to the fly.

29 Be careful while walking to the stream. Don't just push through. Briars can be very dangerous to your waders' health. Even though the material may seem heavy duty, waders can still get tiny holes and nicks resulting in leaks.

30 If you are going to release a fish, make sure you cradle it in the palms of your hands under the water, rather than gripping it. Gripping harms internal organs and the protective coating over its skin. If you handle it gently, it can have a chance to thrive and grow and perhaps challenge another angler.

31 Every season has a lot to offer, and in each a careful approach provides better chances for success. In the early season the water tends to be higher, allowing for a closer and more open approach. In late spring, and summer especially, don't be in a hurry as you near the stream or begin to fish. It's very easy to spook trout in lower water, so you need to approach the pool quietly, wading slowly and deliberately. The less you disrupt your surroundings the better your chances are of taking your fly from the mouth of an outwitted trout.

A Macrame Dragonfly Nymph



*by Chauncy K. Lively
photos by the author*

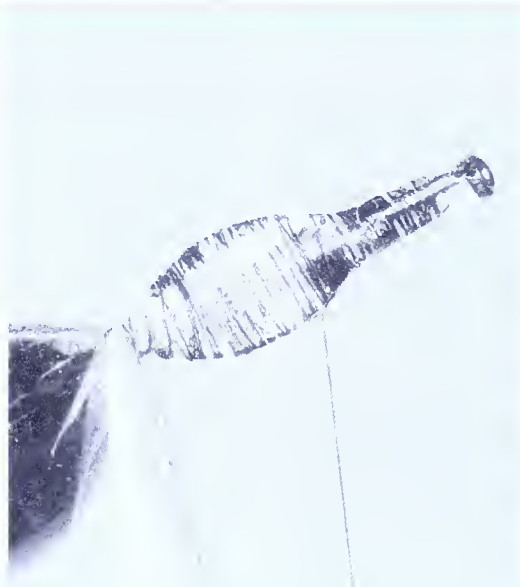
In recent years nymph fishing has gained many new devotees—partly because of the abundance of pertinent information now available. Much of the mystery many anglers once attached to this kind of angling has been dispelled, and they are finding that it doesn't require a special brand of magic to be successful. In addition, more attention is paid nowadays to representing specific nymphs and the behavioral characteristics special to each.

But as popular as nymph fishing has become, relatively few anglers include dragonfly nymphs in their bag of tricks.

Dragonfly nymphs are available to trout and bass in both streams and lakes. They bury themselves in silt and detritus but forage in open water in pursuit of their prey—generally, smaller nymphs and other aquatic creatures. They are relatively large larvae—big enough to interest bigger-than-average fish. They move through the water in short, quick spurts, an action certain to draw the attention of hungry gamefish.



1 Clamp a hook in the vise and glue the underbody to the underside of the shank. Tie in the thread behind the eye and wind it over the underbody in close turns to the posterior end. Allow the thread to hang and coat the thread wraps with lacquer, both above and below the underbody. For tails (actually, they are gills) tie in the goose biots for an effective length of about 3/16-inch. Bind the strands of floss to the edges of the underbody, long ends to the rear, with olive floss nearest the tier. Trim the excess floss, whip-finish the thread at the fore end of the abdomen, and remove the thread.



2 Turn your vise around until the jaws point toward you. Now the dark (olive) floss hangs from the hook on the left and the light floss from the right. Overlap the ends of the floss underneath the hook, with the dark floss under the light and pointing right, the light pointing opposite. Form a simple overhand knot by bringing the end of the dark strand over and behind the light. Where the dark floss crosses the light, open a small loop and slip it over the hook's eye, dark above and light below.



3 Slide the loop to the rear of the underbody and draw the strands tightly. The light strand is now on the left. As the dressing progresses, the strands alternate sides as each knot is made.

Dressing: Macrame Dragonfly Nymph

Dragonfly nymphs commonly crawl out of the water to emerge. Where aquatic vegetation is present, they often climb the stalks, and it is not unusual to find empty shucks still clinging to reeds following emergence. I have fished along the edges of cattails and caught bass with live dragonfly nymphs still in their throats. Evidently the bass had plucked them from the stalks like a cherry picker at work.

Macrame is a weaving technique that lends itself well to the construction of bulky fly bodies such as those of dragonfly nymphs. The distinctive shape of the pattern's body is achieved through the use of a pre-formed underbody cut from sheet aluminum or plastic and glued to the underside of the hook's shank.

The Macrame Dragonfly Nymph requires a few more steps (and perhaps a bit more patience) in its construction than more conventional dressings, but it's not difficult to tie. If you have time to spend a few more minutes than usual, I think you'll find the pattern rewarding. Besides, it's fun occasionally to stray a bit off the beaten trail.

Pennsylvania
ANGLER



4 Repeat the knotting sequence in steps 2 and 3 until the abdomen is completed. Again, tie in the thread and tie off the floss at the fore end of the abdomen. Trim the excess floss. For legs, cut three fibers from a dark turkey wing feather and tie them in crossways over the shank in the thorax area, spaced as shown. Coat the legs with Flexament for added durability.

Hook: Size 6 to 8, 3X or 4X long.

Underbody: Cut to shape from thin sheet plastic or aluminum.

Thread: 6/0 black prewaxed.

Tails (gills): Tips of two gray goose biots.

Abdomen: One eight-inch length each of olive and tan six-strand cotton embroidery floss.

Thorax: Olive natural or synthetic fur dubbing.

Legs: Three individual fibers from a turkey wing feather.

Wing case: Polyethylene film.

Eyes: .028-inch monofilament.



5 Wind the thread back to the fore end of the abdomen and wax two inches next to the hook. Then pinch-dub the fur to the thread and wind to form the thorax. For the wing case, first prepare a four-inch-square sheet of polyethylene film by gently sanding both sides with fine-grit sandpaper until the material is uniformly whitish. Then tint the sheet with a dark-gray marking pen. Cut a strip the width of the thorax and one-half the length of the hook. Taper one end of the strip and cut a V-shaped notch in the other end. Align the strip with the notched end extending in front and tie in the tip of the pointed end behind the eye. For eyes, cut a half-inch length of heavy monofilament (I use .028-inch) and grip it in the middle with pointed tweezers. Using a match or lighter, bring a flame close to one end of the monofilament, causing it to form a small ball. Then repeat on the other end. The result should resemble a miniature barbell. Tint the eyes with black marking pen. Then tie in the eyes over the wing case tie-in.



6 Pull the wing case back over the monofilament shaft between the eyes and tie it down with three turns behind the eyes. Bring the thread forward underneath the eyes and whip-finish behind the hook eye. Lacquer the exposed windings. To complete the Macrame Dragonfly Nymph, use tweezers to bend the leg joints.

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photo-Russ Gettig

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"During the past five years I've caught several hundred trout while winter angling, many of them from freestone streams."



Red Freestone Trout

by Mark A. Nale
photos by the author

December is a transitional month for trout fishing. During a good year, the warmer weather makes it a continuation of autumn angling. At its worst, ole' man winter sets in with a vengeance and December trouting on freestone streams is eliminated altogether, as it was in 1989. Usually nature offers us something in between. By selecting the warmer days, particularly days that follow warm nights (when the air temperature stays above freezing), even January and February can offer excellent trout fishing.

Winter trout fishing on freestone streams provides solitude and a chance to communicate with nature one on one. The trout, which probably haven't seen an angler for weeks, can be cooperative, too. Forget all those stories about sluggish, stubborn trout. They can readily be caught on bait, flies and even spinners. Here is a sampling of what winter trouting has to offer, as well as a few pointers to get you into the action.

The new cover of wet snow that blanketed the forest floor squeaked underfoot as I walked toward my destination, a small mountain trout stream. The fresh snow clinging to the stream-side hemlocks and rhododendrons reminded me of a scene that



A detailed photograph of a brown trout leaping from dark, rippling water. The fish is angled upwards, its mouth wide open, revealing a silver lure with a spinner and a hook. The trout's body is covered in dark spots, and its fins are spread. The background is a soft-focus view of a snowy, mountainous landscape under a bright sky.

Special considerations

Cold weather creates some special problems. Dress for the weather, and be careful while wading. A dunking in the summer might be embarrassing, but the same slip in winter could be life-threatening.

Lower temperatures can wreak havoc with spinning line. Watch for little line problems and correct them before they become big ones. Limp mono has less cold-weather memory and causes fewer tangles.

You'll soon discover that December trout can be caught without much variance from your normally successful fishing tactics. Remember to fish the temperature peaks and watch for patterns in the kinds of habitats that yield trout. A little experimenting can clue you in to stream sections that are consistent producers.

Pull on your long johns and an extra pair of wool socks and give winter trout fishing a try. There's nothing like a splashing trout to break the winter doldrums.

one might see gracing a Christmas card. All was quiet except for the gentle gurgling of the water and the friendly chirping of a pair of chickadees as they flitted through the branches.

Hopes for trout action were bolstered when my stream thermometer registered 43 degrees, which I've found to be a good water temperature for winter fishing. I began moving upstream and casting my spinner into each likely looking trout lie. It didn't take long before the lure's silver flash fooled a 10 1/2-inch wild brown. The next spot produced a strike from a smaller trout, but my hook set left me with a limp line. A few casts later I had another miss as I retrieved my lure past some tree roots.

After 15 fruitless minutes, I approached a deep pool dug by floodwaters rushing over a cross-stream log. Not wanting to spook the trout, I cast from about 10 yards downstream and tucked the spinner just where it needed to be—against the log. I let the lure sink before beginning my retrieve, and the reel handle hadn't completed two cranks when a trout of about 16 inches slammed the spinner. I set the hook and battled the trout away from the cover. Just as I brought it to the lip of the pool, one more head shake from the heavy fish sent the spinner flying back in my direction and the trout swimming in the other. As I exhaled, the moisture from my breath condensed into a cloud and I thought aloud, "Nothing like a little excitement to warm the body!"

My lure attracted two more trout during the next half-hour, a smaller wild fish and a 9 1/2-inch brown that held over from a spring stocking. It might surprise anglers to learn that even in this cold water, all the trout hit and fought with the same enthusiasm that they show during the warmer months.

My last bit of excitement occurred while I touched up the points of my treble hook. An unusual sub-surface movement caught my eye and as I watched, another angler materialized. This one was furry and only 18 inches long! The mink swam by me, probing around some larger stones. Then it surfaced and climbed up on a log not eight feet away. After watching the mink scamper away, my numb fingers told me that it was time to head home.

Fishable freestoners

To most anglers, winter trout fishing is just plain crazy. Others think that it is limited to the spring-warmed limestoners. Still others question my choice of spinners because trout are supposed to be sluggish in cold water. Although limestone streams are

often my first choice for winter trout fishing, about half my time is spent with spinners on tiny woodland freestoners. Except in the coldest weather, freestoners are quite fishable with water temperatures that average only four to six degrees lower than neighboring limestone streams.

During the past five years I've caught several hundred trout while winter angling, many of them from freestone streams. Last winter my brother Frank and I drove over two hours to fish a small Carbon County stream. The weather had been warm by winter standards, but we hadn't counted on the shading effect of the steep hollow. Both of us were a bit disappointed when the silver column on Frank's stream thermometer dropped to 39 degrees, but our spinners picked up trout at a consistent pace. We released 43 trout during the 4 1/2 hours we fished.

Water temperature

A temperature of 39 degrees produced lots of trout, but can the water be too cold? My stream journals show that winter freestoners have pitched me water temperatures of 35 to 45 degrees. Although I've struck out on 36, 38, and 43 degrees, once I caught three trout in 35-degree water!

What seems to be more important than the actual temperature is how it compares to what the water temperature was the day or even a few hours earlier. A significant rise in water temperature, say, from 34 degrees to 39 degrees, would be a much better time to fish than if the temperature just dropped to 39 from 44.

Generally speaking, trout seem to behave normally in water temperature down to 38 degrees. On a few of my outings, when the water temperature has been in the mid-30s, I've discovered the trout to be concentrated at the bottom of the deepest pools. Once I located the fish, bringing my spinner by them very slowly would elicit a strike. During the warmer months, the first cast to such a spot either produces a strike or it won't. In low water temperatures, the fourth, fifth or even the tenth retrieve might be the one to produce the trout. Be patient.

When and where

During most of the year I'm a "be out there at the crack of dawn" person, but the winter is different. Not only do you want to select the warmer days for your excursions, but you will also benefit from fishing during mid-afternoon—the warmest part of the day. The trick is to hit the water temperature at its peak.

Avoid periods when the snow melts rap-

idly. Although the weather might be bright and sunny, the water will be frigid.

All approved trout streams are open to winter fishing through the end of February, but all trout streams aren't created equal. Streams that had water temperatures last summer in the high seventies or low eighties would not be wise choices. This is sound advice for several reasons. Remember, we are after trout, a coldwater species. Because no trout have been stocked in streams since last spring, any streams or stream sections that became too warm for trout last summer are probably still troutless. The same spring water that cools streams in summer also moderates winter's cold.

Select streams that are ice-free. Catch-and-release waters are also good choices because they should be carrying a good trout population. Streams with significant wild trout populations are my first choice.

How

I fish the water with spinners much the same as I do during the rest of the year, with a few exceptions. Skip the swift riffles. Although they are great trout-holding spots in summer, I don't find trout there in the winter. Fish rapidly, trying to present your bait, spinner or fly to as many trout as possible. Notice the type of water where the trout are hitting. If a pattern develops, take advantage of it. Concentrate your attention at the bottom of still pools and in and around cover if the water temperature is below 38 degrees.



Selected Freestoners for Winter Trout Fishing

Stream/County/Area

Hickory Run (C&R)/Carbon/NE

Mill Creek/Sullivan/NE

Lyman Run (FFO)/Potter/NC

Long Run/Clinton/NC

South Br. Kinzua Creek/McKean/NW

Hemlock Creek/Venango/NW

East Br. Rattling Creek/Dauphin/SE

Bobs Creek/Bedford/SC

Bald Eagle Creek/Blair/SC

Beaverdam Run/Somerset/SW

Shafer Run/Somerset/SW



Downriggers

for Small Boats

by Alex Zidock, Jr.
photos by the author

It's a fact! If you aren't fishing where the fish are, you can't catch fish. And just because your boat is small, it doesn't mean you can't take a tip from the guys with larger boats. To be consistently successful you must go to the fish with whatever it takes. In some cases, that means dropping cannonballs to summon an explosion at the end of your line. But from a small aluminum boat? You bet!

More and more small-boat anglers are finding that the addition of downriggers to their 12- to 16-foot boats is the way to reach suspended fish. Several years ago you never heard of using a flutter spoon for shad, or of anyone even considering using downriggers to take old papermouth. But recent success stories include more and more tales of using the combination. Even though downrigging for shad is relatively new, it's more traditional to use the weights to reach a variety of other popular Pennsylvania gamefish.

Through the seasons, when fish select a variety of zones in the stratified water of Pennsylvania's larger small-boat lakes and rivers, downriggers are the most successful way to present the lure to the fish. Downriggers on small boats are not only practical—they are easy to mount and easy to use.

In most cases you can buy downriggers to fit your boat without alteration. However, even when using these ready-to-go models, your boat may need some minor modifications.

"I've been using clamp-on downriggers for several years on my 14-foot aluminum boat," says Joe Ulicny of Bethlehem, PA. "But I had a friend weld some square heavy aluminum channels right over the gunwales for more support."

The channel takes the abuse—not the lighter gunwale. Ulicny successfully uses his downriggers with eight-pound balls in the spring and fall at depths ranging from 12 to 22 feet, primarily taking stripers, brown trout and walleyes from Lake Wallenpaupack.

Largemouth and smallmouth bass, an occasional perch and catfish also find his deep-running lures.

Another Wallenpaupack fisherman, Bob Mayer, of Greentown, was able to mount his downriggers by fastening the slide-on bases directly to the deck of his aluminum bass boat. When deck-mounting, backing plates may be needed to add strength if the decking is not thick enough to keep the mounting bolts from pulling through. This also is a consideration when mounting base plates to fiberglass boats.

Most manufacturers of downriggers suggest mounting them as far back in the boat as possible, usually on the transom, but both Ulicny and Mayer opted for convenience of access for a one-person operation when determining mounting positions in their small boats.

"I mounted mine just ahead of the console, amidships, so I easily could watch them while facing forward and driving the boat," Mayer says. Ulicny clamps his starboard downrigger amidships so he can reach over the steering console and easily pick up the fishing rod. On the port side, the downrigger is near the stern and within arm's reach from his seat at the wheel.

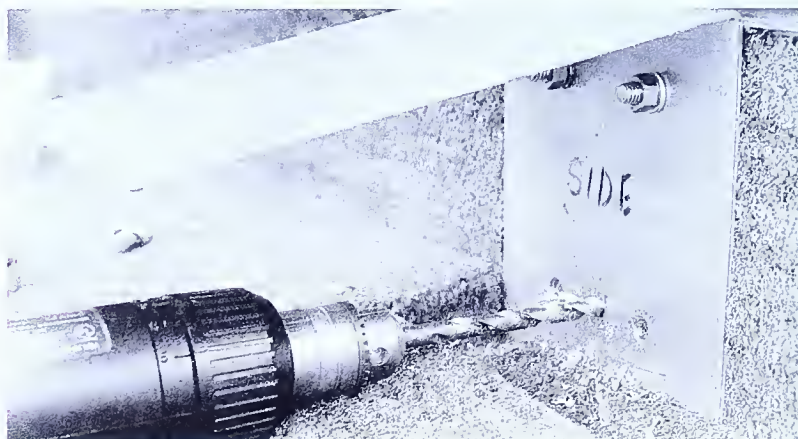
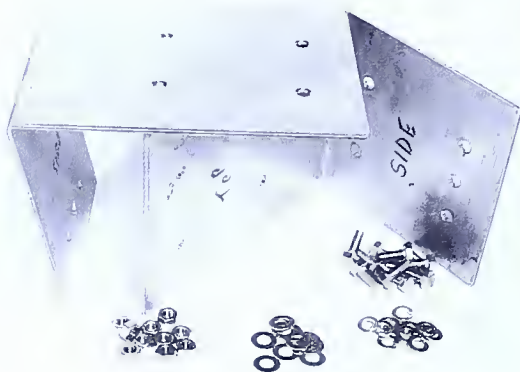
If your aluminum boat does not have deck space suitable for mounting the units, there are alternative mounting methods. It's easy and inexpensive to make your own brackets. I owned a set of Penn Fathom Master 625 downriggers with Swivel-Matic bases and a 16-foot aluminum walleye boat with no flat gunwale or deck surface to secure the bases properly. I chose the Penns because they offered extended booms (48 inches), swivel bases and an accurate gear-driven depth-measuring system.

There are several good manufacturers of downriggers in the marketplace and you should make your selection based on cost and your personal likes and dislikes.

Basically, this is how easy it was to make brackets. I used a rectangular piece of cardboard similar to the lid of a shoe box to determine the length and width of the stainless steel I needed to make the brackets. The light cardboard was easy to fold and cut when I held it against the inside of the boat to determine how long the side of the bracket should be. And it was easy to measure and mark the top where the base would fasten.

I then took a piece of light rod, a heavy coat hanger wire will do, to determine the angle of the side of the boat from the chine

Here are the stainless steel brackets and mounting hardware used to mount the downrigger to the bracket.



Drill the first hole and place the bolt and nut. Then drill the other holes.



Joe Ulicny (above) mounts his clamp-on downrigger near a brace for added strength. The special aluminum channel welded to the gunwale (right) strengthens the installation.



(where the bottom of the boat meets the side) to the gunwale (the top of the side). I did this at the position I would mount the brackets. By placing a straight wood board from gunwale to gunwale it was easy to determine if the top is level.

If you are positioning the downriggers across from one another you need only bend one wire. If you are putting one rigger aft and one forward you need to determine the correct angle to bend the bracket for each position.

I chose 1/8-inch stainless steel for my brackets, but heavy gauge aluminum would work just as well. Neither rusts. I went to a local machine shop that did metal fabrication with my cardboard pattern and the rod I bent to the correct angle, and in a few days my brackets were ready, bent to my specifications.

Remember that the material you select for your brackets must be sturdy enough to support six, eight or 10 pounds of lead hanging from the booms. Take into consideration the pressure on the brackets caused when the weights bounce up and down in rough water. You also must determine the length of the side of the bracket and the number of bolts needed to secure the bracket to the boat.

If you have a choice, overbuild the brackets rather than skimp on strength. Try to position the brackets near a seat or other support to keep the sides of the aluminum boat from flexing from the weight of the extended downrigger.

Once I had the brackets, I marked and drilled the tops using the downrigger base as a pattern. I also drilled the mounting holes. If you do not have access to a drill press and you choose stainless steel, have the machine shop drill all the holes according to your pattern. Stainless steel is difficult to bend and drill.

My aluminum boat has a carpet liner on the inside surfaces, so I didn't use a rubber or soft-plastic spacer between the bracket and the boat. You might consider placing this kind of spacer. I

merely placed the bracket in position and marked the first hole, drilled through the carpet and boat, and put the bolt and washer through the hole from the outside. I then put a lock washer and nut on the inside. When this was secured I drilled the remaining side holes and installed the bolts, washers and nuts.

If your boat is on or near the water when you are drilling, use only battery-powered tools. Use large washers, or even a plate on the outside of your boat so that the bolts do not pull through the soft aluminum of your boat.

With the brackets in place I was ready to mount the bases. Most small-boat downriggers that attach with clamps have stationary bases. That style downrigger remains in a fixed position and cannot be turned. The advantage of swivel bases is to swing the longer booms parallel to the boat for ease in rigging or docking.

You pay a lot more for stainless steel bolts, nuts and washers, but when they're on you don't have to worry about rust and corrosion.

Using downriggers from small boats can be a lot of fun and can prove very productive. But remember—it's not the complete answer to catching more fish. Downriggers allow you only to get the lure or bait down to where the fish are feeding. You still need to equip your small boat with a fish finder to locate the fish, and more importantly, to locate submerged trees and other objects that may snag the heavy weights.

ANGLER



This deck-mounted downrigger might need a backing plate to prevent the bolts from pulling through.



The stainless steel bracket on this finished installation holds the downrigger firmly in place.

Choosing Trout Streams for Wintertime Fly Fishing

by **Bob Petri**

The past several winters here in Pennsylvania have been comparatively mild, and cold-weather trout fishing on open freestone water has been excellent. If you haven't sampled some of your favorite streams during the winter months, you are missing out on some of the most satisfying trout fishing of the year. By following a few basic rules about stream selection and fishing techniques, you can enjoy good fishing for trout in un-crowded conditions, against the backdrop of a beautiful Penn's Woods winter day.

When choosing a stream to explore for winter trout opportunities, consider several factors. First, not all Pennsylvania trout streams are created equal. Many of our larger more marginal streams, even though they may be heavily stocked in the spring, hold few trout into the winter months. These streams are better passed by in your search for productive winter water. The same goes for some of our very smallest stocked streams. In the cold snaps that are inevitable even in the mildest winters, these streams may lose the flow from some of the lesser springs that feed them, freeze over and become unfishable.

Important factors

Primary among the considerations I use to determine if a stream is a good candidate for winter fishing are water temperature, the gradient, or pool-to-riffle ratio of the stream, and the presence of a wild trout population. Basically, these are the same indicators that are common to good trout water during any time of the year. Hence, a good rule of thumb is that a stream that holds up and fishes well in the heat of summer will also be a good bet during the winter.

Water temperature

Water temperature is perhaps the most important factor. In the winter, you want to find the warmest water possible in which to fish. My records show that winter trout in freestone streams feed opportunistically

at water temperatures of about 37 degrees and above. I have taken trout in water as cold as 33 degrees, but not many.

To find these streams with the best water temperatures, you need two basic tools—your eyes and a dependable stream thermometer. Look for streams that are fed by small spring tributaries. Spring water in Pennsylvania leaves the ground at around 52 degrees, so these short spring tributaries warm the main stream considerably if there are enough of them.

One of my favorite streams in Crawford County is transformed by such a tributary. Above the tributary, the main stream is often frozen over in the winter, but below, it flows at a moderate and productive 38 to 40 degrees. Look for similar situations as you search for likely candidates for your winter trout fishing.

Stream gradient

The gradient of a stream is another important factor in choosing winter trout water. Streams that are characterized by long, slow pools interspersed with shallow riffles are generally not a good bet for winter fishing. Because of the slow motion of the water, the pools in these streams can quickly develop surface ice and become unfishable. The shallow riffles in between offer no holding water for trout.

The ideal stream for winter fishing has a gradient that allows for some deep pocket water, and even deeper pools with a moderate current throughout. You find less frozen water in streams like these, as well as suitable cover for the trout. The upper reaches of our larger stocked streams, and our small to medium waters, offer the greatest numbers of waterways like these.

Wild trout presence

The presence of wild trout in the stream serves not only as a potential bonus for your fishing efforts, but it also indicates at least a moderately good level of trout habitat. This means that more of the stocked fish

from the previous spring may still be present. Despite all you hear about "fished out" streams, I catch a surprising number of stocked trout during my winter outings. The majority of these fish come from streams where there is a resident population of wild trout.

Tackle

Whichever kind of tackle you use, remember the cardinal rule of winter trout fishing: Slow and easy does it. This applies to everything from your approach to likely holding water to the way you present your fly or lure. Winter trout streams are often low and clear. Approach the water with the same stealth and low profile that you would use in late summer. Just because a trout's metabolism is slowed by the cold water doesn't mean the fish won't leave the scene in a hurry if he senses your presence. Plan your approach from a distance, and use streamside cover like brush and trees to mask your silhouette.

Flies

Fly fishermen hoping to take advantage of winter opportunities will be well armed with a selection of nymphs, streamers and other underwater offerings. Stonefly nymphs in black, dark brown or amber are particularly effective. The old standbys like the Gold-Ribbed Hare's Ear and Muskrat Nymph also work. Your nymph box should be liberally stocked with these patterns in sizes 6 through 12. I prefer these larger nymphs because they seem to do a better job of attracting the trout's attention, and drawing the out of his cold-water lethargy.

Marabou fish streamers in black or white are also effective for winter trout, as are some of the standard bucktail patterns like the Black-Nose Dace and Fox Squirrel.

Nevertheless, my hands-down favorite winter trout fly is the Woolly Bugger. There is just something about the pulsing hackle and marabou tail of a Bugger that tends to move even the most reluctant winter trout.



In my experience, the best color combinations for winter Woolly Buggers make use of subdued colors like brown, black and dark olive. An all-black Bugger has been my best overall producer. All the same, keep some Buggers in gaudy colors like red, hot pink and bright green on hand as well. I believe that winter trout strike as often out of curiosity and territorial protection as they do out of hunger. These bright Buggers sometimes goad them beyond endurance.

On the bottom

Whichever fly you choose will make little difference if you don't fish it on the bottom. This is where you can find the trout in the winter, where the current is minimal and food sources like nymphs are readily available. Make sure there is enough weight in the body of your fly or on the leader to get it down to the fish. If you aren't losing the occasional fly to rocks and snags, you aren't fishing deep enough.

Work the deeper slack water slowly and carefully with short upstream casts. Keep in touch with your fly at all times—the strike of a winter trout can be almost imperceptible. Using a strike indicator on your leader can be a big help.

For this winter work, a medium-action fly rod of about eight feet balanced for a 6-weight line is about right. A leader of six to 7 1/2 feet that tapers to 3X helps you keep control of the line and gives you enough leader strength to dislodge your fly from at least some of the inevitable hangups. Very low and clear water occasionally requires a longer, lighter leader.

Work the water thoroughly. It sometimes takes a few extra casts to get the trout's attention in cold water. Once you have his attention, however, the same trout will often strike repeatedly at an offering in the winter. I have missed the same fish on five consecutive casts before finally managing a hookup. So if you miss him the first time, keep trying.

Winter fishing for stream trout may not always offer the same fast and furious action we sometimes experience in May or June, but there are other pleasures on a winter trout stream in Pennsylvania. A trout stream cloaked in the snowy mantle of winter, and backlit by a December sun, rivals any place I have seen for breathtaking scenery. The trout become a bonus. Explore the possibilities this winter. You won't be disappointed.



**G. R.
Hare's Ear**



Black-Nose Dace



**Early Brown
Stonefly**

Shawnee Lake's Hardwater Fishing *Secrets*

by Tim C. Flanigan
photos by the author



At the eastern foot of the Allegheny Plateau lies an emerald jewel. This gem's charm is greatly enhanced by the setting in which it is found, and those who know this waterway best tend to keep its many delights secret. This treasure is Shawnee Lake, quite large at 451 acres, located in the Bedford County state park bearing the same name. The scenery alone is sufficient enticement to lure outdoor lovers to visit this beautiful park. The lake's geographic location is notably unique and conducive to good fishing. Immediately to the west of the lake, the Allegheny Front rises to 2,900 feet. This wall of mountains casts a long shadow over Shawnee well before actual sunset occurs, thereby extending those prime late-afternoon fishing hours.

Although the park encompasses 3,983 acres, the real attraction is the fishing in this shallow impoundment. Shawnee Lake, named for the Shawnee Indians who once inhabited the area, is managed by the Fish and Boat Commission as a warmwater resource and is stocked with species such as largemouth bass, walleyes, northern pike, chain pickerel, muskellunge, channel catfish, bullheads, crappies, yellow perch, sunfish and bluegills. Smallmouth bass, suckers and carp have been natural residents of the lake since the dam breast restricted the flow of Shawnee Creek in 1953.

The lake is located 10 miles west of Bedford, along routes 30 and 96, with park entrances on both highways. Route 96, south of its intersection with Route 30 in the town of Schellsburg, crosses the lake via two bridges. Ample parking and modern restroom facilities are located at the ends of both bridges.

From the Pennsylvania Turnpike at the Bedford exit (11), drive south on Route 220 to Route 30 and then west to the traffic light in Schellsburg. Turn south on Route 96 and you're there.

Fishing opportunities in the lake are consistently good year-round and especially good in the winter, a reflection of wise resource management resulting from cooperation among the park personnel, Commission biologists, WCOs and sportsmen. Ice fisher-



men who know how good Shawnee fishing is tend to be very closed-mouthed about it. There is hardly a more secretive group than walleye fishermen. These guys guard their hotspots with the zeal of CIA agents, and Shawnee boasts a very healthy walleye population including some “big boys.” I may lose some friends revealing this information, but it’s time that someone leaked Shawnee’s secrets to the rest of the Commonwealth.

Structure

Shawnee is located in what was once broad, flat wetlands, so although it covers a substantial area, the 35-foot depth at the dam breast is the greatest of the entire lake. The lake contains vast areas with depths of three to five feet that are dotted with weed beds. Many of these fish-holding weed beds can be found around the lake’s two islands. There are also some stump fields and artificial reef structures that are fishing hotspots. Around these areas fishermen may very well encounter some of the lake’s predator species, which also have a fish dinner in mind.

Be sure to stop by the park office when you visit and admire the enormous muskellunge hanging on the wall. This monster’s size suggests the abundance the food found in the lake for its kin and predator counterparts, such as walleyes and largemouth bass. It is not uncommon for ice fishermen to be faced with the problem of how to extract an outsized musky of 40-plus inches through that oh-so-small hole. In fact, many fish in the 35- to 38-inch class are taken and released by ice fishermen who know that there are some real bruisers to be had.

Walleye prospects

Shawnee walleye fishing has been getting progressively better during the past five years. Last winter was the best ever. Eight-pounders are not uncommon and you can expect to catch and release many walleyes in the 15- to 17-inch size. The large number of these just barely legal-size fish is a promise of increasingly excellent walleye fishing in the seasons to come. This winter should undoubtedly be the best walleye year yet at Shawnee.

Shawnee Lake was constructed as a flood control project, and each spring, Fish and Boat Commission personnel electrofish the deep hole in Shawnee Creek just below the dam breast and return large numbers of walleye of varying sizes to the lake. These fish pass through the siphons during the high-water periods and become trapped at this location. I have been privileged to assist with these endeavors periodically, and my first experience left me in open-mouthed amazement at the numbers and sizes of the walleyes we handled. During the course of two days in the spring of 1988, we returned nearly 300 walleyes to the lake. They included many trophy fish measuring from 25 to 29 inches. Now those are what Granddad used to call “dandies”!

Winter walleye fishing is best during the early morning and late-afternoon hours. Minnows are the premier bait. Wild minnows such as the black-nosed dace are superb walleye attractors, but they can be difficult to obtain during the winter. Fatheads are

the most common minnow choice because of availability, but to increase your odds of success with Shawnee walleyes, try shiners in various sizes.

I don't know just what it is about shiners, but they really produce walleye action in this lake. There are several bait shops located conveniently near the lake to provide your every need, including waxworms, maggots, mealworms, red worms, nightcrawlers, fatheads and shiners.

Pickereel action

A dangling minnow has much to worry about in Shawnee's winter waters, not the least of which is a large population of good-sized chain pickerel. This species is commonly found in a daily bag limit lying on the ice. Shawnee pickerel are beautifully colored fish, and do they ever fight! There is no doubt that many large pickerel are misidentified as muskies when first glimpsed through the ice. They are a bit bony, but fish chowder made with pickerel is a meal fit for a king.

If safe ice conditions continue into March, hardwater anglers can enjoy some of the fastest and finest pickerel fishing that one could imagine. This is pre-spawn time for pickerel and you may not be able to handle five tip-ups. Pre-spawn fishing produces some large fish. Shiners fished in depths of three feet or less are a key to success.

Largemouth bass

If a pickerel doesn't attack your minnow, one of the lake's many largemouth bass may. Just as in warm-weather bass fishing, the weedbeds are the place to find feeding fish patrolling for baitfish. Shawnee's shallow waters give anglers a unique opportunity to locate weedbeds by lying on the ice and peering through the hole. Legal-size bass are in good supply and fish in the 20-inch class are commonly taken through the ice. Bass opportunities are excellent on this lake, especially early in the morning and during the late-afternoon hours.

While waiting for the big predators to visit your minnows, you can stay busy stocking the cooler with panfish fillets. Shawnee bluegills are large, free of parasites and delicious in the frying pan. Cloudy days are superb for bagging limits of slab-sided bluegills. On these days they usually feed all day long.

The most effective baits are waxworms, maggots and meal worms. Jigging for Shawnee bluegills is a ball, and success is practically guaranteed.

For eating quality, the yellow perch has few rivals, and Shawnee is blessed with a very healthy perch population. You can expect to take perch from 10 to 14 inches by presenting small minnows over rocks and at the edges of weed beds. Fatheads suspended on size-eight hooks do the trick. There is no doubt when a school of patrolling perch passes by because suddenly all your tip-ups demand attention.

Crappies

Crappies also inhabit this lake in large numbers and good sizes. Although you can expect to take crappies throughout the day, opportunities are best during the last hour of daylight and just after dark. They, too, take your minnow offerings, but jigging with small teardrop jigs and waxworms has proven to be the most effective method. Crappies can be found throughout the lake.

For the catfish fanciers, bullheads can be taken all day long by presenting just about any live bait on the lake bottom. In recent years, the lake has received successive large stockings of channel catfish fingerlings and anglers are beginning to reap the har-

vest of these fish. The big cats also take minnows, so you never know just what you'll find at the end of your line.

For the nocturnal angler, night fishing at Shawnee can be very productive, especially for channel cats, bullheads, crappies, perch, bass and walleye. The same techniques and locations used by daytime fishermen work quite well. The park's gates close to vehicular traffic at nightfall, so nighttime fishing access is limited to the parking areas along Route 96. This is no obstacle, though, for this is the preferred access of most anglers.

The hotspots in the lake are generally between the two islands, Shawnee Inlet, just offshore from the beach to Fenton's Cove, especially the small stump field on the point, and along the rocky shore west of the water plant along Route 96.

You should also know that in alternating years Shawnee Lake is drawn down to a low pool to control aquatic weed growth. Although some weeds are beneficial, an overabundance can be detrimental to fish populations and aggravating to anglers. With the water at low pool, many acres of lake bottom are exposed to the elements, thereby freezing them. A drawdown is scheduled for the 1992-93 ice fishing season. This should be viewed as good news by ice fishermen because of the concentration of the fish population.

A wintertime trip to Shawnee can be a real cabin fever cure for the entire family. Historic and hospitable Bedford County offers many attractions that will interest mom and the kids while you unwind at the lake. The area is rich with antique and specialty shops and nearby Blue Knob State Park offers fine skiing. A day on the ice can generate big appetites and the area features many restaurants with fare ranging from gourmet dining to fast food.

For more information on Shawnee State Park or to check ice conditions, call the park office at 814-733-4218. For general state park information, call 1-800-63-PARKS.



More information, bait, tackle, accommodations

For more information and literature on local attractions, contact the Bedford County Tourist Promotion Agency at 137 East Pitt Street, Bedford, PA 15522. The phone numbers are 814-623-1771 or 1-800-765-3331. For a unique way to experience Bedford County's hospitality, request a list of bed & breakfast establishments.

Lodging is readily available, practically at lakeside, at the Shawnee Motel in Schellsburg. The phone number is 814-733-2828.

Campers can find accommodations at the Friendship Village Campground located just off Route 30, one mile West of Bedford. The campground is open year-round and features 175 sites with heated bath houses and a meeting room with a wood burner. Phone 814-623-1677 for reservations.

Coach Ed's Bait Shop is located along Route 96, so close to the fishing that you can walk to it with your minnow bucket. The coach has fishing licenses, tackle, all types of live bait and minnows available throughout the ice fishing season. The coach's phone number is 814-733-2993.

Manns Choice Grocery Store, located at the intersection of routes 96 and 31, three miles from the park, also has live bait, minnows, tackle and licenses. They are open seven days a week. Call 814-623-5785.

The Laurel Sport Shop, at 227 West Pitt Street in Bedford, is the area's largest sporting goods dealer, with ice fishing tackle, live bait, minnows and fishing licenses. The number is 814-623-9575.—TF.

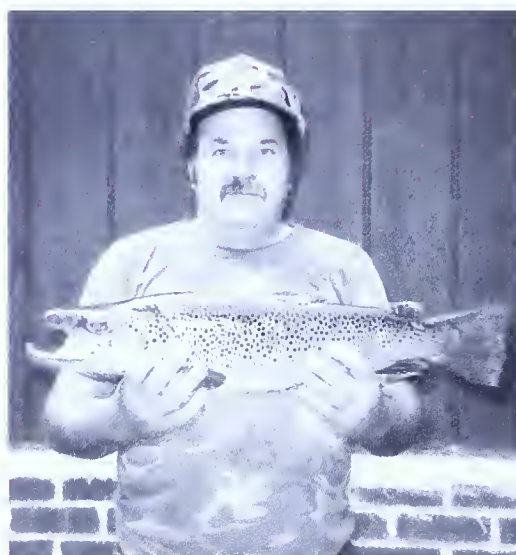
Cast and Caught



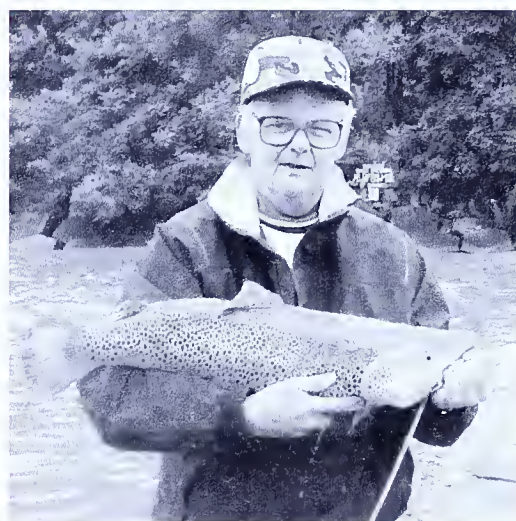
Kenneth Chappel, of Washington, used a Northern King to deceive this coho salmon. The fish, caught from Lake Erie, weighed 12 pounds, eight ounces and was 29 inches long.



James Psimer, of Akron, Ohio, was fishing Tamarack Lake in Crawford County when this nice muskellunge snagged his jerk bait. The musky weighed 30 pounds, two ounces and was 46 inches long.



Renovo resident Jake Poletto shows off his six-pound, 26-inch brown trout. He caught the fish on a lure in Paddys Run, Clinton County.



William Richardson, of Washington, earned a Senior Angler's Award for this nice brown trout. He caught the 14-pound, nine-ounce fish out of Walnut Creek while fishing a black fly and grub combination. Nice job, William!



Jack McDermott earned an Angler's Award with this 16-pound, three-ounce striped bass. The Elizabeth resident caught the 34-inch striper in Raystown Lake.



Your readers might be interested in learning about the catches you can get from local waters. This is a 52-inch musky I caught and released while fishing at Glendale Lake last August. I also caught a 54-inch musky at Shawnee State Park last September. That fish, which I kept, weighed 43-pounds, eight-ounces.

Over the last four years, I have fished Pennsylvania waters exclusively for muskellunge with great success. In that time, I have caught over 60 muskies—seven of these fish were over 50 inches. I attribute my success to the Fish and Boat Commission and its efforts to maintain quality fisheries, which I think are getting better every year.—Dwight E. Shaffer, Jr., Central City, PA.

Caught and Released



Terry Lazor, of Glenmoore, PA, shows off one of two sturgeon he caught while fishing for shad on the Delaware River last April. Terry and his companions had been fishing only a few hours when they caught the first sturgeon. He says he didn't realize what was on his line until it came near the boat. Terry quickly unhooked the fish, posed for a picture, and released it. Not long after that, he found a second sturgeon on his line, which was also released. Nice job, Terry!

Catch and Release Study

A recent study by researchers from Ontario, Canada, shows that if a fish is played to the point of exhaustion, its mortality rate increases substantially if it is then exposed to the air for 30 to 60 seconds. During this study, three groups of rainbow trout were put in tanks and chased until they no longer responded. One group was then removed from the water for 30 seconds, a second was removed from the water for 60 seconds, and a third group was left in the tank. After this experiment, blood samples were taken and the fish were observed.

The results showed that the longer fish were exposed to the air after exercise, the higher the mortality rate. Most deaths occurred four to 12 hours after the fish were returned to the water.

These fish died because a fish's gills are made of delicate structures used to filter oxygen into the bloodstream. When fish are taken out of the water, the tiny walls of the gills collapse, leaving little or no room for dissolved gases to be exchanged.

To minimize the chance of killing a fish you intend to release, follow these few simple steps. First, land the fish as quickly as possible—this is not always easy if you have hooked a large fish on a fine leader (a landing net can aid you here). Second, keep the fish submerged when you remove the hook—a barbless hook aids rapid removal.

Catch-and-release fishing can provide consistently high catch rates if released fish live to be caught again. This study shows that mortality of released fish can be quite high, but proper handling procedures can help reduce these figures.—*Bob Carline, Pennsylvania Cooperative Fish and Wildlife Research Unit, Penn State University.*



Northern Lancaster County WCO K. Derek Pritts puts the finishing touches on an access platform for handicapped anglers. Last June, WCO Pritts received an award from the Pennsylvania Sportsmen for the Disabled. The award recognized his efforts in developing and implementing a community service program in which participants built five new accessible fishing platforms along trout streams.

Fishing licenses and trout stamps make great gifts!

FISHING LICENSE APPLICATION

Pennsylvania Fish & Boat Commission Attn: License Division
P.O. Box 67000
Harrisburg, PA 17106-7000

PRINT PLAINLY

(PFBC-L-118, Rev. 06-92)

DATE _____ FISHING LICENSE NO. _____

NAME _____ (Official Use, Issuing Agent Only)

STREET or R.F.D. _____

CITY _____ STATE _____ ZIP _____

BIRTHDAY mo. _____ day _____ year _____ HEIGHT _____ WEIGHT _____

AGE _____ SEX _____ EYES _____ HAIR _____

Resident of Pennsylvania? ☐ Yes ☐ No

CHECK THE LICENSE DESIRED

☐ Resident \$12.00

☐ Senior Resident..... 2.00

☐ Non-Resident..... 25.00

☐ 5-Day Tourist..... 20.00

Valid from _____ to _____

☐ Trout/Salmon Stamp..... 5.00

(Add 50 ¢ Agent Fee to Each Item Above)

☐ *Resident Disabled War Veteran
Claim No.Free

*Available only from County Treasurers

Applicant must establish identity, age, and the fact that he or she is a bona fide resident of this Commonwealth to the satisfaction of the issuing agent.

Type of ID _____

I certify the above to be a true and accurate statement.

APPLICANT'S SIGNATURE _____

NOTE: When mailing in your application for any kind of resident license, send a copy of your birth certificate or your driver's license

PLAY— A Great Stocking Stuffer

Are you wondering what Santa will put in the stockings of your "rug rats" this Christmas Eve? A one-year membership in PLAY—the Pennsylvania League of Angling Youth—makes a great gift! PLAY is a great way to help your child learn more about fishing, fish, safety and taking care of the outdoors. Your child would receive a membership card, an embroidered patch, a quarterly newsletter, stickers, a Good Luck hook, and Commission publications just for kids for \$2.00. (The cost of PLAY will increase to \$3.00 after January 1, 1993.) Send your check or money order to: Pennsylvania Fish and Boat Commission, PLAY, P.O. Box 67000, Harrisburg, PA 17106-7000.

Volunteer Opportunities

Are you interested in giving some of your time to help others learn about fishing and the environment in Pennsylvania? If so, then we'd like to talk to you! The Volunteer Education and Information Corps is looking for anglers of all abilities, interests and ages to assist us with our public education programs.

Corps members provide a variety of services, including giving fishing or filleting demonstrations, leading casting activities for children, giving presentations for angling and civic groups on

the Fish and Boat Commission, teaching fishing at special one-day events, handling the aquatics station at county Envirothons or Eco-meets, working at exhibits, or providing information at hatchery open houses.

If you would like to contribute to the conservation, protection and enhancement of Pennsylvania's aquatic resources, why not check us out? For more information, contact: Volunteer E/I Corps, PA Fish and Boat Commission, P.O. Box 67000, Harrisburg, PA 17106-7000. Phone: 717-657-4518.



The mission of the Pennsylvania Fish & Boat Commission is to provide fishing and boating opportunities through the protection and management of aquatic resources.

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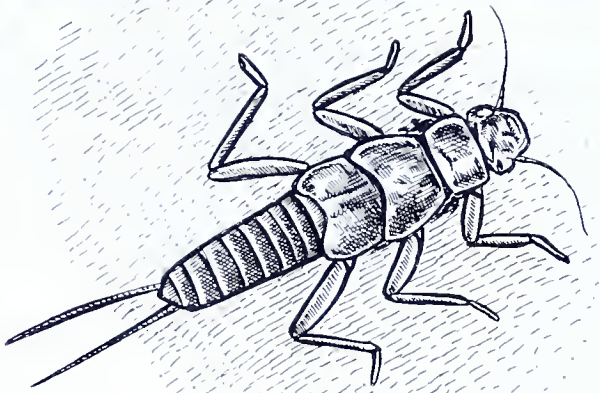
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Angler's Notebook *by Sam Everett*



Nymphs of aquatic insects provide a large portion of a trout's diet. Nymphs move most often very close to the bottom, so when you fish a nymph imitation, be sure to keep it very near the bottom.

Never look away when fishing a surface lure. Strikes can come at any time, and the biggest fish can take the lure in the quietest manner. Looking away can cause you to lose a good fish when you're working a surface lure.

A landing net for trout fishing should have a bag of at least 15 inches in diameter at the top and a depth of at least 24 inches.

Buy the best fishing line you can afford. Inferior line is the most common cause of losing big fish. Buy fishing line in the spring, just before you begin the season, and remember that sunlight and heat are the main elements that cause line to deteriorate.

Fishing upstream with a dry fly doesn't mean that you cast directly upstream. If you do, your line and leader travel over the fish before the fly. Make your upstream casts at an angle to the right or left so that the fly reaches the fish while the line and leader float past to one side.

Wrap an inch-long piece of aluminum foil on your fly leader just above the knot, and crimp it onto the line. The foil glitters and acts as an attractor.

Eddies, backwater spots, bridge abutments, boulders and other slow areas are places where fish rest and feed in moving water. Be sure to check out these places on your favorite stream and rivers.

Inspect your boat's PFDs this winter. If they are ripped, you cannot count them toward the legal requirement.

Pay close attention to your fishing methods. Sometimes a very slight change in tactics can bring on a strike, and if you are aware of any slight changes you make in your tactics and techniques, you can duplicate that method to score again.

The largest brown trout feed at night, so nighttime trout fishing offers special challenges. Scout a waterway carefully and thoroughly during the day before you attempt to fish it at night. You can pick out the best fishing spots this way, and you can locate danger spots, too.

Fish in shallow water are very wary. You must approach shallow-water spots quietly, work the water slowly and deliberately, and make long casts.

When you still-fish with minnows, bring the minnow in every few minutes and make a new cast. This keeps the minnow from hiding in weeds or rocks, and every cast is an opportunity for a fish to see the bait drop into the water.

The fish you catch on a deep-diving plug may have beaten other fish to the lure. That's often why you see fish swimming near a hooked fish. Cast again into places where you've seen fish following a hooked fish.

illustration- George Lavanish

On the Water

with Dave Wolf

The Passage of Time

December: The benchmark of another year ending. The past is the past and I cannot go back—except in my mind. December seems to be a fine time to do such things—to recapture what was lost and what was gained in the days and weeks that we wrap onto a calendar and then label a year.

The month is a time of religious celebration for most—so garished, so brilliant, so overdone and far removed from nature and her subdued tones of peace, tranquility, and the calm colors that blend so well to form our outdoor world, that I often feel lost and out of place. Not that I am not religious, but rather because of what man has created in his ritual of the celebration.

But with the shopping malls full and the tree trimmed, I find the time to sit behind the varnished desk and clamp a hook in the vise. The fur, feathers and thread are my creation of things to come—of a hendrickson hatch on an overcast April afternoon. A hatch that lasts most of the day, with trout lazily coming from the cold waters to sip the hapless creatures.

The vice is also a symbol of things past. It is well-worn and in harsh reality should be replaced. It has filled and refilled my fly boxes far more often than should be required of such a device, and the eyestrain I develop after only a handful of flies reminds me that time is passing and that I, like the vice, am aging.

Age, we hope, lends to learning. Still, despite numerous lessons, I have failed to take my young daughter fishing enough this past year. She is nine—the age when her mind is beginning to focus on other things—a time when distractions with more moment-to-moment excitement threaten to steal her away from the solitude and peace of the tranquil waters where we so often search for the creatures that reside there. Our last day fishing together was a fishless day, and she told me with the frankness only a nine-year-old can muster that she would rather have been shopping.

I had failed to take her out one more time to finish on a high note to retain her interest. But I knew that her future held many more fishless days and that she needed preparation for such events, whether they occurred on the water or in another sector of her life.

The snow slid down the glass pane windows, leaving droplets of life-giving water, before sliding away to fall on the earth. The habitat of our environment was being renewed and I was pleased to find the time to appreciate it. I placed the tail, wound the thread

to secure it, and dropped head cement on the thread. I was patient now, my fly tying in preparation for spring. It was so unlike the past year when time fled so quickly, when I would rush home from work, tie two or three flies for the evening hatch and rush off to the stream.

I would always stay until the very last trout had risen and then stumble from the stream in the darkness. I arrived home late and found just enough time to grab something to eat before stumbling into bed. I dreaded the alarm that tried so desperately to wake

me the following morning and the mad rush to be at work on time. Somehow my life became much like my office—cluttered and often disorganized. My life was experiencing changes and I was not adjusting as quickly as I would have liked.

My fishing days shortened, my time on rivers, lakes and streams stolen from me. The pleasure of being alone in nature was shattered by an anxious man trying to fit in one more cast after the curtain had been drawn on the day. My fishing, I recall, at one point became an unplanned quota that I had to fill. It became more intense with the passage of time. Too many days had already escaped and my casting was in machine gun-like fashion. I stalked the stream like a heron that had not eaten in weeks.

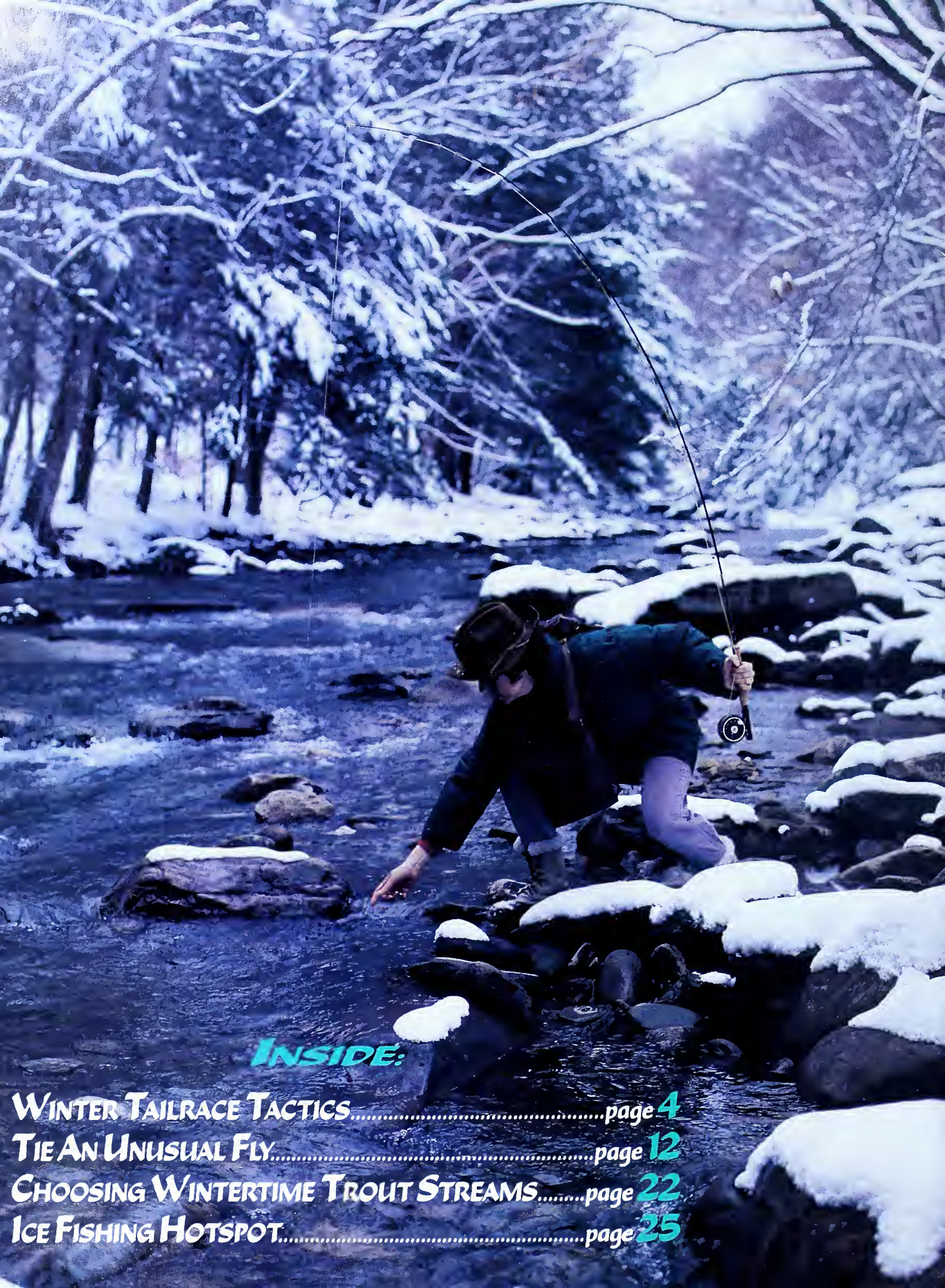
As the seasons changed and winter set in, I resigned myself to the fact that this year was a slump—a mere inconvenience—and there was too little time to make up the lost days. It was only

then that I concentrated on quality. Savoring each and every cast, admiring my catch one second longer before release. I stopped fighting the inevitable and accepted the passage of time as an uncontrollable ticking of the clock. There was nothing I could do to right the situation but to go with the flow, to accept it and emphasize quality instead of quantity.

I placed the hendricksons in the box with my other early season patterns. Rather than bemoan the past, I began to look to the future, to spring in particular, and those warm, balmy days that often interrupt the grip of winter. For the first time this year, I let the past go and looked to the future—to the trout, bass, muskies and steelhead of yet another year, a time for which I would be prepared, a time when my fishing would be slower with more moments set aside for being on the water.



ANGLER



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